THE MEDICAL AND SURGICAL REPORTER.

No. 1890. PHILADELPHIA, MAY 20, 1893. Vol. LXVIII—No. 20

ORIGINAL ARTICLES.

THE POSITION OF STRONTIUM IN THERAPEUTICS.

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Pharmacology.—As regards its chemical properties strontium is intermediate between barium and calcium. Though not an abundant element it is found in nature associated with both the metals mentioned. The principal native forms in which strontium occurs are the sulphate, called celestine, from its sky blue color, and the carbonate, known as strontianite from the place of its discovery, Strontian, in Argyleshire, Scotland. The carbonate was found in 1787 and was at first regarded as a carbonate of barium. Crawford, in 1790, advanced the idea that the new mineral contained an alkaline earth. Strontium was distinguished as an element by Hope, in 1792, and independently by Klaproth, in 1793. Sir Humphrey Davy isolated the metal in 1808, but owing to the faulty process which he employed, did not obtain it in a state of purity.

Strontianite is found in other places in Scotland; in Salzburg; Saxony and Westphalia; in Schoharie, New York, and other places in the United States. Calcium is often, and barium sometimes, present in this mineral. Celestine occurs in various parts of England, in the sulphur mines of Girgenti and other places in Sicily, in Hungary, Salzburg and near Paris. It is abundant in Strontian, or Green Island in Lake Erie. Celestine often contains barium or calcium.

The relation between barium and strontium is analogous to that between sodium and potassium. The strontium salts are between those of barium and calcium in specific gravity. They resemble those of barium in their physical and chemical properties. The salts of strontium are not, however, like those of barium, precipitated by silico-fluoric acid or hyposulphite of sodium. They communicate a brilliant, purple-red color to flame.

From the close association of barium with strontium, the similar composition of the mineral forms in which they occur and the parallelism between their salts it has been no easy task to procure pure salts of strontium. An admixture of barium clings to most products and it has been found especially difficult to remove the last trace of this contamination. On account both of its source and chemical relationships an investigation of the physiological action of strontium was long delayed. It was either condemned as sharing the toxic properties of barium or neglected under the supposition that its influence was comparable to that of calcium. The metal was, therefore, regarded as being only suitable for the manufacture of dyes and fireworks. It is to a French chemist, Paraf-Javal, who has been since 1886 engaged in the preparation of a beautiful strontium chromate for dyeing purposes that we owe the introduction into pharmacy of chemically

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pure salts of strontium. A delicate test for the presence of barium in a solution of a strontium salt is the addition of a few drops of a solution of the bichromate of potassium. This will reveal the presence of even $\frac{1}{1000}$ of barium and will not precipitate the strontium.

Strontium combines freely with other elements and the list of its salts is a long one, embracing, in addition to those already mentioned, the oxide, borate, phosphate, phosphite, sulphide, sulphite, hyposulphite, iodide, bromide, chloride, nitrite, nitrate, lactate, acetate, benzoate, etc. Of these the bromide, the chloride, the acetate and the nitrate are soluble in one and one half parts of water, the iodide in two parts, the benzoate in fifteen parts. The borate and the phosphate are insoluble.

Physiological Action.—It is but recently that the salts of strontium have been subjected to a careful investigation. It had, indeed, been noted by careful observers that, though the oxide of strontium is obtained in the same manner as the oxide of barium, which it closely resembles, yet the former combination is harmless while the latter is toxic when taken into the system. Gruelin, in 1824, made some experiments on rabbits and concluded that strontium and its soluble salts are perfectly harmless. In his "Handbook of Chemistry" he remarks that these salts are not poisonous unless they contain a poisonous acid. Brunton declares that strontium increases the contractile power of muscular tissue and also the duration of the contractions. He believes that these effects are increased by combination with calcium.

Our principal knowledge upon this subject is due to Dr. J. V. Laborde, Chief of the Physiological Laboratory of the Faculty of Medicine, of Paris, who conducted a series of investigations extending through a period of six months. The results were announced at meetings of the Academy of Medicine, July 21st and 28th, 1891. His experiments were made upon dogs and, in one instance, upon the human subject. The drug was introduced by means of intra-venous, hypodermic and intra-muscular injections and also into the stomach by the œsopageal sound. To a rabbit weighing only five pounds, seven and one half grains of the chloride were given with absolutely no result. On the other hand, the chloride of barium, as indicated long ago by Gruelin, Rabuteau and Orfila, is very toxic. Thirty grains of carbonate of strontium were productive of no results in a man. The lactate of strontium was given with impunity and in the dog occasioned marked diuresis. The corresponding salt of potassium possesses toxic power. The bromide of strontium is far better tolerated by the stomach than the bromide of potassium and may be given in considerable doses to man without any ill consequences. M. Chas. Féré, in an independent investigation relative toxicity of the bromides when given by intra-venous injection, ascertained that in the rabbit the bromide of potassium is about five times as toxic as the bromide of strontium. Eighteen different bromide combinations were studied by M. Chas. Féré as regards comparative toxicity. In his tabulated results the bromide of barium stands fourth in the order of toxicity, while the bromide of strontium is sixteenth, of lithium seventeenth and of sodium eighteenth.

The salts of strontium in general are like those of calcium in being innocuous although the latter may produce vomiting when injected into a vein while the former are free from this effect. Strontium increases the appetite, digestion and assimilation of animals, who gain in weight under its use. Its salts retard fermentation and putrefaction and act as intestinal antiseptics. Laborde attributes to them an anthelmintic effect upon the ground that in all his post-mortem examinations of dogs he never discovered any traces of tænia or other parasites. According to the experiments of Dr. Amand Malbec, the nitrate of strontium is a good diuretic. This writer is of the opinion that the sulphate, especially the latter, may be utilized as antiseptics, antiparasitics and restoratives.

The salts of strontium are partially eliminated in the urine and fæces but a portion is retained with the economy and deposited in the bones, liver, and, to a less extent, in other soft tissues. Though elimination begins later there is less accumulation of the bromide of strontium in the organism than of the corresponding salt of potassium.

Therapy.—Strontium is a constituent of many, if not all, mineral springs, and a portion of their beneficial influence may

probably be ascribed to this element. The bromide, the lactate and the iodide are the salts with which thus far the most numerous clinical experiments have been made. These salts, prepared by Paraf-Javal and solutions made by the well known pharmacists of Paris, are now upon the market, the agents for the United States being E. Fougera & Co., of New York. Specimens of these preparations and others made by John Wyeth & Brother, of Philadelphia, and by McKeller & Robbins, of New York, have been placed in my hands for experiment.

The bromide of strontium is in the form of colorless, crystalline needles or grains, which melt with decomposition at a red heat. From the aqueous solution the salt separates in long needles which do not effloresce in dry air or even over oil of vitriol. When heated they melt in their water of crystallization and then give it off. They are easily soluble in water and somewhat so in alcohol. They have a slightly saline and somewhat bitterish taste and are destitute of smell. The bromide of strontium is incompatible with the bicarbonate of sodium, the carbonate of strontium being precipitated.

The solution of the bromide is neutral, permanent, clear, colorless and without smell. It has a saline but by no means disagreeable taste.

The lactate of strontium appears in the form of white granular masses. It has a warm, alkaline and slightly bitter taste and is without odor. The solution is a clear and colorless fluid and has a warm, acidulous, agreeable taste. The iodide of strontium occurs in small white crystals with an acrid saline taste.

Upon the announcement by Dr. Laborde of the results of his study of the physiological action of strontium, clinical experiments were at once begun by several of the physicians attached to the hospitals of Paris. As far back as 1885 Ismail Hassan had announced that the nitrate was of service in chronic rheumatoid arthritis, but his declaration seems to have passed unheeded. It had also been said that the iodide is useful in cardiac disorders. M. Laborde, believing that the bromide of strontium might advantageously replace the bromide of potassium, administered the former drug in epilepsy in doses from 75 to nearly 200 grains *per diem*, the latter quantity being the largest which would be tolerated. In moderate doses it has no irritant effect and in fact, is rather of assistance to digestion. It is consequently much better borne than the potassium salt. Dr. Chas. Féré has related the case of a patient under his care at the Bicêtre treated with 10 grammes (155 grains) of bromide of potassium daily, in whom a cutaneous eruption persisted in spite of intestinal antisepsis. Upon the strontium being substituted for the potassium salt equally good results were obtained without the production of any undesirable symptoms. M. Féré has, in some cases, exceeded 200 grains a day without observing any evil consequences. Dr. Dujardin-Beaumetz also attests the fact that the bromide of strontium is better borne than the other alkaline bromides. Its therapeutic efficacy has been found by M. Féré equal to that of the other bromides used in that disease. Germain Sée has likewise found it of use in epilepsy. Constantin Paul administered 90 grains daily to a young woman who was subject to attacks of hystero-epilepsy at each menstrual period. After the bromide of potassium had been used without effect in daily doses of 60 grains it was replaced by the strontium salt in doses of 90 grains a day. In the two months during which she had taken the latter remedy the attacks had not occurred. At a meeting at the Academy of Medicine, Oct. 27, 1891, M. Sée remarked* that the diuretic effects of the salts of strontium observed by M. Laborde in the dog had not been verified in the human subject. But in those suffering from diseases of the kidneys and heart the digestive disturbances have been notably ameliorated. This fact led him to make use of strontium in affections of the stomach. He had administered the bromide in daily doses of 30 to 60 grains, given during the three meals. In 32 cases of dyspepsia, many of which were associated with excess of hydrochloric acid, rapid and decided relief was obtained, especially in regard to diminution of flatulence. In 8 cases where hydrochloric acid was deficient the remedy produced the same effect as in those attended by excess of chlorine or hydrochloric acid, free or combined. In 6 cases, one of which was of nervous vomiting, the relief was complete. Dr. G.

* See *Medical Bulletin*, January, 1892, p. 17.

Coronedi, of Florence, obtained an excellent result from the administration of the bromide of strontium in an obstinate case of vomiting of pregnancy. He gave 15 grains after each of the two principal meals and the remedy was continued for a month, at the end of which time the gastric inability had almost entirely disappeared and the treatment could be discontinued. The same writer reports favorably of the bromide of strontium in vomiting from dilatation of the stomach, acute gastric catarrah, hysteria, and other conditions. He gave it in unleavened bread immediately before each meal.

M. Sée has seen the bromide of service in Bright's disease. It has not been known to occasion any bromine rash.

A combination known as bromo-strontium has been prepared, a teaspoonful of which contains 12 grains of bromide of strontium and ½ grain of hydrobromate of caffeine. Bromo-strontium has been employed with success in nervous headache, gastric irritability, vomiting of pregnancy, hysterical conditions, etc.

The lactate of strontium is of decided service in albuminuria. M. Constantin Paul thus summed up his experience of five months use in these cases. "Among my patients it generally caused a rapid reduction of the albumen to one-half. Continued for a month the albumen constantly decreased and at the end of that period the remedy could be suspended. The amount of albumen did not then augment but remained. In a case of nephritis, probably amyloid, in a patient suffering from suppuration and fever the result was excellent. In some rare cases the salts of strontium fail to produce a good effect. Strontium is not diuretic. If its exhibition is too soon discontinued the albumen increases. It is indicated in rheumatic parenchymatous nephritis, scrofulous and gouty nephritis and in the albuminuria of pregnant and puerperal women. The remedy is of no service after the manifestation of uræmia." In illustration of the harmlessness of pure strontium the same writer states that he had himself taken 774 grammes of the bibasic phosphate of strontium in 111 days, or about 100 grains a day. He has likewise found the lactate beneficial in albuminuria of cardiac origin. He generally administers it in daily doses of 90 grains, divided into three portions, though he has found it well borne even in daily doses of 120 to 160 grains. Together with adminished excretion of albumen the general symptoms and condition of the patients improve. M. Dujardin-Beaumetz has used the lactate in albuminuria due either to renal or cardiac disease. Within a few days the albumen was diminished to one-half its former amount. This high authority explains the favorable action of strontium by its beneficial influence upon digestion, the amount of toxic material formed in the gastro-intestinal tube being reduced to a minimum. He concludes that in lactate of strontium we possess an invaluable agent, the action of which is at the same time certain and inoffensive. Dr. Bucquoy obtained similar results from the administration of the lactate in albuminuria.

Dr. Ménager has recently reported a favorable action of the lactate in a case of albuminuria with œdema occurring during pregnancy. A pronounced diuretic effect was produced and the dropsy subsided.

The lactate of strontium has also proved of service in dyspepsia and dilatation of the stomach. It is said to have been used with benefit in diabetes.

The nitrate of strontium has been used in 30 grain doses in rheumatism of the joints and the acetate as a tœniafuge in doses of 2 to 4 drachms daily.

Since receiving samples of the chemically pure bromide, iodide and lactate of strontium I have employed them in many cases to which they seemed adapted. The results have, for the most part, been decidedly encouraging though in some the element of time has, of course, been too short to warrant me in expressing absolute confidence in the duration of the improvement. I shall continue my observations as opportunities offer. I subjoin a brief description of certain selected cases in which I witnessed marked benefit from the use of strontium.

In a case of advanced Bright's disease, accompanied by eczema, an abundance of albumen in the urine, œdema of the lower limbs, embarrassed respiration and irritability of the stomach and bowels, notable amendment took place within two weeks from administration of the lactate, in 30 grain doses four times a day. The eczema and the œdema entirely disappeared, the respiration improved and the urine contains much less albumen. The

irritability of the mucous membranes has diminished. The patient is able to take more food, his digestion is better and his sleep more sound and refreshing. In this case all the usual remedies had been tried in vain.

The lactate produced amelioration in several cases of subacute or chronic gout and rheumatism, manifested by stiffness and pain of joints, muscular pains and an excess of uric acid. The pains were greatly relieved, the turbid urine became clear, the tongue more clean, digestion better and the bowels more regular. I gave the drug in doses of 10 to 30 grains from four to six times a day. Although the results, in these cases, were more satisfactory from the lactate, the bromide also, given in the same doses and at the same intervals, was of efficacy. Contrary to the statement of M. M. Sée and Constantin Paul my attention was called to a pronounced increase in the quantity of urine passed though this result did not occur in all cases. Many of these were cases in which treatment by means of salicin, salicylic acid or the iodide of potassium had been used without avail or in which they had even done harm by damaging the digestion. This, as every one knows, is an exceedingly intractable class of cases and if the lactate of strontium can exert a beneficial influence upon a considerable number of these it must be regarded as an important addition to our therapeutical armamentarium. In patients of a neurotic type or in whom the nervous system had been gravely impressed I derived better results from the exhibition of the bromide.

The iodide was of service in three cases of chronic eczema attended by considerable infiltration and thickening of the skin and clearly dependent upon the rheumatic diathesis. In one case there was articular involvement, in another, well-marked lumbago and pains in the limbs, while the third was characterized by fleeting muscular pains in different parts of the body. In one of these cases the eruption has entirely disappeared, while in the remaining two a gradual improvement is manifest. Suitable external treatment was conjoined.

A case of psoriasis due to a rheumatic dis-thesis is improving under the administration of 30 grains of the iodide of strontium five or six times a day. Infiltration is lessening, uric acid disappearing from the urine and the flying muscular pains decidedly ameliorated. I express no opinion regarding the durability of the amendment.

The lactate proved efficacious in a number of cases of chronic gastric and intestinal catarrh. The remedy was well borne and seemed to promote nutrition. It was given in doses of 10 to 20 grains three or four times a day between meals.

In nervous dyspepsia and gastralgia marked relief followed the exhibition of the bromide of strontium, given in doses of 10 increased to 30 grains three or four times a day.

One case of chorea was much benefited by the bromide. The patient was a child, nine years of age, whose nutrition was decidedly impaired on account of the constant twitching which rendered mastication difficult and interfered with sleep. The dose was 10 grains, increased to 15 grains and repeated two or three times in the course of the day.

In a case of spinal neurasthenia of long standing, accompanied by attacks of pain in the back and limbs, headache and insomnia, 10 grains of the bromide at bedtime effectually relieved the pain and secured a good night's rest.

In a case of that rebellious malady, parasthesia in an aged person, (senile pruritis) a happy effect followed the administration of 30 to 40 grains of the bromide. Itching, indeed, was not abolished but was notably relieved, so that the patient experienced tolerable comfort and was able to sleep much better than formerly.

From these experiments it would seem without doubt that in cases of chronic rheumatism, gout, gastro-intestinal catarrh and albuminuria strontium deserves extended trial. Failure of other remedies should indicate its use. The bromide of strontium is very well adapted to replace the bromide of potassium in the treatment of epilepsy, being at least as efficient and often better tolerated.

CHANGED HIS NAME.—"Howdy-do, Hogg!"

"My name is Bacon, sir."

"Beg pardon; but I felt sure you were Mr. Hogg, the invalid."

"So I was; but I have been cured."—*National Tribune.*

CLINICAL LECTURES.

CEREBRAL SPASTIC PARALYSIS.*

DE FOREST WILLARD, M. D.†

We have to-day two very interesting cases of spastic paralysis which require operation. These represent the two extremes, one being a mild case in which there is a slight paraplegia with not much mental impairment, and the other being one of those severe grades of the affection, in which there is a marked general spastic condition of all the muscles of prehension and locomotion, and in which the mind is in a condition of imbecility and stupor. Between these two types there exists every degree.

CASE I. The first patient is a white boy of five years, whose parents are both living and well. No history of deformity or paralysis can be elicited, but he is the youngest of seven children, six of whom have died under five years of age, the cause of death being diphtheria in two, teething in three and jaundice in one instance. He was born at full term, without instruments, and has never been ill. About three years ago his parents noticed that his ankles were weak, for which he was treated at the Orthopædic Hospital in this city, and for which braces were prescribed, which he has since worn. The parents noticed that his knees were stiff and that he walked on his toes.

Upon examination the feet are found extended, and upon attempting to flex the foot upon the leg, the calf muscles become tense, and if gentle force be continued the foot may be flexed. Upon removing the hand the foot again extends. The flexion of the foot under firm pressure is peculiar and differs from ordinary contracture from paralysis, which would allow the foot to extend as far as a given point but not beyond it. In flexing the foot the muscles seem to give way to the moderately firm pressure of the hand as a piece of lead bends, and on this account, this form of contracture is known as "lead pipe contracture." On flexing the knees the same rigidity of the muscles is by means of walking shoes his condition can be much improved. The hamstring tendons will not require division, but the apparatus will have to be carried above the knee and secured to a thigh band, the knee-joint being a lock-joint which will fix the knee in the extended position, but which may be temporarily relaxed to flex the leg when sitting.

Operation. The patient being etherized, and the parts having been previously prepared, a puncture was made with a sharp-pointed tenotome and a probe-pointed tenotome was introduced into the inner surface of the tendo-Achilles about one inch above the insertion. The tendon was put on the stretch by the assistant, the cutting surface of the knife was turned forward, and the tendon was divided by a gentle, rocking motion. As soon as the division was accomplished, the tenotome was turned flatwise and withdrawn, the puncture being closed with a small pledget of antiseptic gauze dipped in a 1:1000 bichloride solution. A piece of dry gauze, cotton and an antiseptic roller bandage were applied, and the foot, in a slightly over-corrected position, was fixed with a plaster of Paris dressing.

CASE II. The second case is a small white boy only three years of age. His father is alive and healthy; his mother is also living, but delicate since the birth of this child. The child has never been strong since he had scarlet fever. There is no history of deformity or nervous disease in the family. While carrying this child the mother had a fall at the seventh month; the waters broke, but no other injury was noticed at the time and the gestation progressed uninterrupted to full term. The labor was very prolonged; observed, but not to so great a degree. The deformity is due to some cerebral injury or disease which has left this irritable condition of the muscles.

In this case the prognosis is very favorable, and after the tendo-Achilles has been divided on both sides, the feet can be brought squarely upon the ground, and

* Reported by Dr. James K. Young.

† Clinical Professor of Orthopedic Surgery in the University of Pennsylvania, etc.

the breech presented for several hours and became black from pressure and cyanosis. At first the limbs were very flexible, but during his third year they began to grow rigid when moved. On examination all his extremities exhibit well-marked spastic condition when moved; the right side is more affected than the left. The child is well nourished and plump. His general physical condition is otherwise favorable; his mental condition, however, is seriously impaired. His expression is vacant, his attention is attracted with difficulty, and he does not attempt to express himself in words. He has marked strabismus.

This case represents an extreme grade of the affection. The prognosis must of necessity be a guarded one. Operations will improve the condition of the limbs, and the mental condition also may to a degree be considerably improved by permitting him to mingle with his fellow creatures. It is impossible to remove the primary lesion, and when one set of muscles is operated upon, the spasm may be increased in other sets of muscles. In some cases, as in one recently seen, all the voluntary muscles, even the muscles of the tongue, are affected. In these cases, in addition to the operations, massage and other local treatment that may be employed, it is necessary to make a special effort to educate the mind. The child may be sent to a special institution for the education of the feeble-minded, to a private institution of the same character where only a limited number are taken, or a private tutor may be appointed. Under such training it is remarkable how much improvement may be attained.

The present case will require a number of tenotomies, and to-day we will perform section of the adductor tendon, which is the operation most required. This is best accomplished at its insertion into the pubic portion of the os innominatum, the insertions of the adductor longus and brevis being the ones most frequently contracted. The tendons are put on a stretch by separating the limbs as widely as possible. The puncture is then made upon the outer margin of the stretched tendon, a probe-pointed, broad-faced, convex tenotome is inserted flatwise, its cutting surface turned against the tendon, and with a slight rocking motion the division is accomplished, care being taken to protect the skin.

Operation. The patient having been etherized and the parts having previously been rendered aseptic, the parts were put upon a stretch, and with a sharp-pointed tenotome the puncture was made at the outer border of the tendon half an inch from its insertion into the ramus of the pubes. A probe-pointed convex tenotome was carried flatwise behind the tendon, its cutting face turned inward and the section made. The tenotome turned flatwise was withdrawn, the puncture being covered with a small pledget of gauze and the whole covered with antiseptic gauze, cotton and a roller. The limbs are best secured in this separated position by means of a plaster bandage extending from the toes half way up to the thighs. This prevents flexion of the knees, and the feet are securely tied by means of a muslin roller bandage. This simple method is more efficient than the more complicated apparatuses sometimes employed.

Why Good Swimmers Drown.

The *Northwestern Lancet* offers a new explanation of the sudden drowning of good swimmers, hitherto attributed to cramp. There is nothing in a cramp in a leg to prevent an ordinary swimmer supporting himself in the water by his hands or on his back, nor to cause him to throw up his hands and sink once for all like a stone. The cause is attributed to perforation of the ear drum, through which the access of water pressure occasions vertigo and unconsciousness, and a practical caution results, to persons having such perforation, to protect their ears with a stopper of cotton when bathing.

THE CREATOR KNOWS. — "Doctor," said the patient, "I believe there's something wrong with my stomach."

"Not a bit of it," replied the doctor promptly. "God made your stomach and He knows how to make them. There's something wrong with the stuff you put in it, may be, and something wrong in the way you stuff it in and stamp it down, but your stomach is all right." And immediately the patient discharged him.—*Amer. Anal.*

COMMUNICATIONS.

EXTRA-UTERINE PREGNANCY.*

DR. MORDECAI PRICE., PHILADELPHIA.

Preliminary to the discussion of the subject to which I shall call your attention I feel it appropriate to mention the fact that of the many operators in abdominal surgery, who have left indelible proof of their well-earned reputations in ovariotomy, the pioneers in abdominal surgery, its first successful workers, few if any of them recognized this dangerous condition as one that could be removed by the very same power they were so fond of applying in other and less dangerous conditions.

Many of us lay claim to originality in procedure, while the fact exists that all that is best in our work can be directly traced to that genius of the surgery of our generation, Mr. Tait. He has taught us the best of the little we know. From the lessons his own work in abdominal surgery taught him he took up and perfected a work long neglected. I forbear calling your attention to what had been done by other men. Mr. Tait has done more to forward the cause of enlightened and skillful surgery than any man of his own or any other generation. It is the afflicted woman and the profession who should appreciate his great worth. In extra-uterine pregnancy alone he has saved more lives than some of the great battles of the war destroyed. It is to be hoped that with the profession the talk about originality will be modestly tempered; they are most thoroughly learned in these lessons who have had most experience in their application. Casting aside all claims of originality I will call your attention to the result of lessons in one hundred cases of extra uterine pregnancy. From my observations in these cases I second Mr. Tait's opinion that they are all tubal in origin. That the rupture takes place during the first twelve weeks in the greater number of the cases. I know of none later in the cases coming under our care.

Symptoms in extra-uterine pregnancy present a picture which once seen and appreciated cannot be forgotten by any one who has ordinary surgical sense. The symptoms of the disease are, in most cases, well-marked, absence of a period, a soft cervix, severe pain, agonizing at times, with fainting, in many cases death like pallor, a feeble and almost pulseless condition, distended abdomen, diarrhœa with no relief of symptoms, a constant desire to stool, the patient often found in the water closet in an unconscious condition owing to the great loss of blood from straining efforts at stool.

A feeling of fullness and weight in the pelvis, a boggy, fluctuating mass in Douglas' pouch, at times a tumor at one side or the other, or both. It is the pressure of this blood tumor on the bowel that compels the patient to make efforts to stool for its expulsion.

In recent cases well-marked symptoms of peritonitis have existed without increase of temperature. In more chronic cases where there have been a number of attacks with repeated bleeding from the ruptured tube with encapsulation; blood is a foreign body in the peritoneum and nature always makes an effort to protect itself from dangerous invasion from any irritant or poison.

Where the old clot is breaking down and the tube undergoing necrosis, there will be an increase of temperature. In my own personal experience in fifteen cases operated on with twelve recoveries, all of them emergency cases, almost all of them at the time I first saw them were supposed to be dying; pulse could not be counted at the wrist, almost every symptom here noted was present. I have assisted my brother, Dr. Joseph Price, with most of his cases, now eighty-five in number (one death), and I have yet to see a single case of intra-peritoneal hæmato-ceale. We have found the child in all cases of recent rupture, and rupture not over two weeks old, and also the placenta with its peculiar appearance and odor. In one month in the year 1891 we had eight cases of ruptured extra uterine pregnancy, the

* Presented to the State Med. Soc., 1893 and reported by Special Correspondent.

child was found in seven, the eighth was a chronic case of Dr. Dunham, of Trenton, N. J., that had ruptured eleven weeks before in the hands of a man that did not suspect the real cause of her trouble and when Dr. Dunham was called to the case she had a blood tumor extending to the umbilicus, accompanied with daily chills, contents very offensive with a large necrotic placenta. In this case we did not find the child, and I have no doubt it had been removed by absorption as many of them are. This patient recovered. The inflammatory diaphragm would not let the bowels descend to fill up the pelvis, so we left the cavity full of boiled Trenton water with a glass drainage tube to finish the good work, with watchful care of her attendant. She made a satisfactory and rapid recovery.

The case to which I wish specially to call your attention is one of extra uterine pregnancy operated on in the tenth month. Her attending physician was Dr. James Collins, a surgeon of well known reputation in this state and a member of this society. From the meagre history we could gather of her case she became pregnant about the first of January, 1892. February 13th, while shopping, she was seized with agonising pain, was compelled to return home, fell on her doorstep and was carried in the house. Dr. George Yeomans attended her for three days but did not suspect pregnancy; not improving Dr. Yeomans requested that her regular attendant, Dr. James Collins, be called. She was then complaining of severe pains in the elbow joints, was much debilitated, as if suffering from mild sepsis. She slowly improved and the Dr. discontinued his visits. From this period on she suspected that she was pregnant.

Though ill she continued in the discharge of her domestic duties. Between the fourth and fifth months there occurred free hemorrhage from the uterus. She then doubted the possibility of pregnancy. About a month later she felt life; she was suffering severely but continued about her work, though losing flesh and strength daily and feeling herself a very ill woman. From the beginning to the end of her pregnancy she does not remember a single well day. She was taken in labor on the evening of the 21st of October; for three nights she had severe labor pain; there was no dilatation of the cervix until the 23rd. On the 23rd Dr. Collins concluded that there were serious complications in the case and suspected monsters, as two heads could be distinctly felt, one to the right and the other to the left; no part of the child could be detected in a careful examination through the cervix. It was determined to give the patient ether and do anything to help her that might be required by the child and the presentation. Dr. Collins in a very short time decided what he had to contend with and asked me to confirm his diagnosis of extra uterine pregnancy.

This was an easy matter—the womb was then wide open and empty—the hand passed in to the thumb and nothing but small clots of blood found in the uterus. The operation was a very short and simple one; the usual instruments for a section and the usual care to have things clean. An incision four to five inches long in the median line to the side of the placenta as near as we could judge of its location. The child had for its covering part of the placenta and its amniotic sac. It was delivered by the breach and passed over to Dr. Jennings, of Virginia, who took charge of the baby.

THE TREATMENT OF THE PLACENTA.

Before the operation the position of the placenta was to the left, the child in the center and the womb to the right. The placenta was attached to the uterine attachment of the left tube and the entire pelvic viscera of the left side from the spine at the back, extended up to the kidney and covered the descending colon. The placenta was slightly wounded in the abdominal incision, and was the cause of considerable hemorrhage. This was controlled by clamping forceps which were allowed to remain until the first dressing. The child was enveloped by the amniotic sac. To the amniotic sac was attached the transverse colon; also the small intestine to a small extent. In carefully examining and estimating the surface covered by the placenta those present concluded it was as large as the rim of a man's hat. The cord was attached about two inches to the left and the same distance above the umbilicus. The huge placenta vessels radiated in every direction toward the cord. The thought of removing the placenta in its peculiar position and size never once occurred to me, but

the knowledge of what would happen if the attempt was made did forcibly occur to me. The removal with such attachments could not have been other than of fatal hemorrhage.

The cord was then tied short where the amniotic sac was attached to the upper part of the wound, the general peritoneal cavity was opened, and the sac was stitched fast to the abdominal peritoneum. There was no amniotic fluid surrounding the child, all had been absorbed and the skin of the child undergoing digestion. This was shown as the least rubbing with a cloth would take off all the true skin and leave a raw and bleeding surface.

odor except that of creosote. The patient's temperature slowly advanced until about the 14th day, when her appearance indicated great danger from sepsis. An attempt was made to remove the placenta, but a slight detachment of it produced alarming hemorrhage which was controlled by pressure. In twelve hours the temperature dropped to 96°, and the indications were of a threatening character. At this time the opening in the abdomen gave no promise of the recovery of the patient; the membranes and placenta had a black and gangrenous appearance.

At the end of the third week the patient's condition seemed so desperate that

Child 4 days old. Delivered by Section by Mordecai Price, M.D., Oct. 28, 1892.

After the removal of the child the cavity in the amniotic sac was much reduced in size by the contraction of the surrounding muscles and viscera. These contractions were well marked. The sac was cleaned with gauze and packed all over the face of the placenta, and the ends brought out of the abdominal wound. Additional gauze was placed to keep the wound protected, iodoform was freely used and the first dressing was left for three days and then removed, and there-after twice daily until the patient recovered.

The drainage was free and consisted of blood and serum, perfectly free from all

we felt warranted in making a second attempt to remove the placenta, with the same result as in the first instance,—alarming hemorrhage. We then decided to cut away with the scissors all that portion of blackened placenta and membranes in sight. This was done daily, sometimes as much as one ounce at a time. All was removed until living placenta was reached. This continued until the thirty-third day when the patient seemed to be in severe labor, and part of the membranes from the left kidney presented themselves in the upper angle of the wound. The patient was suffering greatly from intermit-

tent paroxysmal pain. I would state that the placenta made a hard ridge of tissue, raising up the abdominal wall from an inch to 1¼ inches from the pubis to the left kidney, hard as a fibroid tumor and tender to the touch. This did not change in appearance until the thirty-third day, when spurious labor set in. We at once decided at all risks to remove the placenta. I passed my hand immediately back of the placenta over the kidney, finding its edge detached. I enucleated all the placenta except that attached to the uterus and left tube. This I could not tear away. The placenta tissue was living and bled freely. On the thirty-fifth day I removed the remainder.

At the end of the second week the amniotic sac over the transverse colon had sloughed away and a fecal fistula was the result. This complication continued to trouble us up to the sixteenth week. After the placenta was removed our patient gave us no further anxiety as to her recovery.

One of the strange features of Mrs. S. case was the fact that when ever the child was brought to her after the delivery, or was in sight, she become sick at the stomach. This continued for the entire period of the retention of the placenta, thirty-five days. She tried by every means to overcome it, she is a woman of wonderful will-power, a patient, child-loving, Christian mother, who felt it her duty to overcome such feelings. As soon as the placenta was removed, this symptom at once disappeared. She never would admit until after the removal of the placenta that the child's presence gave her both mental and physical distress. Had we known such to be the effect of its presence we would have removed it permanently from the room.

Child 7 months old. Delivered by Section by Mordecai Price, M.D., Oct. 23, 1892

CAUSES OF DEATH IN EXTRA-UTERINE PREGNANCY.

The most important cause of death is great loss of blood; the quantity lost is almost incredible and death, in some

cases, almost immediate; others only live a few hours, dying in great agony.

To perish by loss of blood is to be consumed by unquenchable fire; the burning thirst and intense pain cannot be described. I speak from my own experience, having once bled to unconsciousness from an open vessel after an amputation. The burning pain of the amputation was as child's play to the suffering from loss of blood. It is recorded by those who have attended cases of extra-uterine pregnancy, where the hemorrhage was so profuse as to destroy life in a few hours, as cramps, cholera morbus, uterine colic; in fact, every agonizing condition we may be called to treat.

Second, from pressure of the blood clot in the peritoneum; it takes much less fluid injected into the peritoneum to destroy an animal than if forced into the bowel, showing the direct destroying power in its pressure upon the sympathetic ganglions in the abdomen. The influence of blood pressure is well shown in cases of extra-uterine pregnancy where there has been great loss of blood, pulseless and apparently dying, abdomen distended with blood and clot; as soon as the abdomen is opened and the bleeding tube and blood-clot removed, the pulse will appear at once with regular and a distinct, countable beat, showing the influence of the pressure on the heart and other vital organs.

This fact we have noticed many times in our desperate cases. At time of rupture if the patient does not perish the peritoneum at once begins the removal by absorption of the blood-clot, placenta and baby, and I have no doubt there are many cases of recovery; but if this physiological work does not succeed, changes will take place, the contents will become poisonous, septicemia and its consequences will destroy the patient. Delays in operative measures in these cases make up the mortality list to the figure it now presents; could we operate promptly in all cases there would be only a very light death rate, say one to two per cent. These cases that have gone on to a later period and then have the child perish and the dead child become encapsulated, with such changes as time and a strong constitution can stand, with the placenta removed and so much of the earlier landmarks removed by the changes of time that we are unable to say anything of its earlier history save what the living ones have taught us as to the pathology of this dangerous condition; changes may and often do take place in these encysted, encapsuled extra-uterine pregnancies that will destroy life.

HEMORRHAGE.

No one doubts the possibility of hemorrhage in any part of the body, therefore, we may have intra-peritoneal hæmatocele, but the condition must be very rare, and its causes, as given by most admitted authorities on this subject, doubtful. Take the work of Dr. Joseph Price, and my own. We have never met with a case of intra-peritoneal hæmatocele in hundreds of operations done in the pelvis, and we have had hemorrhage from ruptured extra-uterine pregnancy one hundred times, and the cases we have met with exactly correspond with those described by Dr. Martin, under the heading of "Intra-peritoneal Hæmatocele." The day will come when Dr. Martin will change the heading of the chapter in his excellent work on the diseases of women from "Intra-peritoneal Hæmatocele" to Extra-uterine Pregnancy. I have no doubt that much of the confusion in the minds of the profession comes from the fact that this great surgeon continues to associate the symptoms of this most dangerous accident with a condition that in the experience of equally as good observers exists only as a very rare condition. I contend that we have absolute proof that the condition Dr. Martin calls intra-peritoneal hematocele is none other than extra-uterine pregnancy, for we operate for the identical symptoms and find ruptured tube, a placenta, and a baby in ninety per cent. of the cases, and other proof of pregnancy for the remainder.

There are a few important questions in regard to the treatment of extra-uterine pregnancy to which I would like to call your attention—conclusions drawn from my own experience. Such an occurrence as a rupture primarily into the broad ligament—I have never seen anything that in the least resembled it.

I have seen them develope in Douglas' pouch with the broad ligament covering its entire face as high as the umbilicus and at the time of operation had we gone through the broad ligament in the removal of the product of conception, the

placenta and the retained blood clot, we would without doubt have concluded we had a broad ligament pregnancy. In our experience we have never met with a single case that had ruptured into the broad ligament.

Now in regard to the time for operation. In my opinion the operation should be done as soon as the diagnosis has been made—immediate surgical interference without regard to period of development or the viability of the child. I cannot agree with Mr. Tait in the following: "So long as an ectopic gestation was going after the period of primary rupture without risk to the mother, we should certainly not interfere."

I cannot conceive of a period in these cases where the extra-uterine gestation can go on without great danger to the mother. The placenta is daily enlarging and forming new adhesions and in every way increasing the risk of the mother. We hesitate to operate for the same reasons that we delay operating in large and complicated tumors—we know the great risk the patient has to take. The operator also feels that in a measure he may shorten his patient's life. Thus he wishes to shirk so much responsibility. We know by experience in all abdominal work that delays are dangerous. Extra-uterine pregnancy is no exception to this rule, but from its very beginning to the finish, there is continuous and increasing danger. No one here can question the advisability of an operation at the time of a first rupture for the control of the bleeding point and the removal of the condition producing and the cause of that danger; nor does the necessity for operation lessen from this dangerous period of rupture, but on the contrary continues to rapidly increase the danger to the mother. It is his duty to explain daily increasing danger of an operation and also the in all human probability and ultimate destruction of his patient by her misplaced pregnancy. For these reasons I would advise a patient to submit to an operation at the earliest opportunity available.

Now as to the propriety of destroying a child. This question decides itself in all patients of the Roman Catholic faith. We have no right to dictate to them what should be done when it is the law of the church that no child should be sacrificed to save the mother. From a personal standpoint I would always give the mother the benefit of all chances in this murderous condition.

There are a few points I wish to lay prominently before this society: First, we have but one rupture of an extra-uterine pregnancy; the repeated hemorrhages come from a detachment of the placenta or a reopening of the old bleeding point in the tube, and not from a secondary rupture as stated in most reports of cases and by the works on the subject. The second point I wish to call your attention to is the fact that all cases that go on developing after the tubal rupture are those where the child has been forced through the tubal rent, securely encapsuled by the amniotic sac that has remained in tact, and where the placental detachment is not sufficient to destroy the life of the child for want of sufficient blood to nourish until other attachments of the placenta have been formed.

If the amniotic sac is destroyed the child is either absorbed, digested by the peritoneum or becomes encapsuled by the peritoneum in its efforts to take care of its contents when once encapsuled in this effort of nature to protect its vital organs, it may be retained for years or there may be changes in the sac or its contents that will require immediate surgical aid to prevent a fatal septic peritonitis. All the cases of extra-uterine pregnancy that go to term do so by the protective influence of the amniotic sac which has been left in tact from the start and, so far as our experience goes, is its only protection. All the cases both in my hands and those of Dr. Joseph Price have been so protected. The one operated on in Camden at the seventh month with a living child by Dr. Joseph Price was so encapsuled by the unruptured amniotic sack.

The one operated at 63rd and Woodland avenue for Dr. Weaver at the end of the second month the child was in perfect condition and encapsuled in the amniotic sack. This case would have gone on to term had not the hemorrhage been so severe as to almost destroy life. In that case I removed the placenta and tube and the child in its amniotic sack was not greatly adherent to any point save the attachments of the tube.

A person who has lead poisoning never sweats, and the mucous membrane of the intestines is as dry as the skin.

LA GRIPPE OR EPIDEMIC INFLUENZA; RESULTS AND SEQUELÆ.*

D. H. BERGEY, M. D., North Wales, Pa.

La Grippe, or epidemic influenza, is an infectious, contagious disease, characterized by the rapidity of its onset, with symptoms varying somewhat with the mucous surfaces involved, and also with the previous health of the patient, attacking all ages, though most prevalent among adults. One attack does not give immunity to a second attack, and it is extremely liable to be followed by relapses.

Bronchial and gastro-intestinal catarrh are the two forms most frequently noted, though all the mucous surfaces may be involved at the same time. The invasion is usually rapid, with initial chill or chilliness followed by considerable elevation of temperature, and prostration of unusual degree extending through the period of convalescence, which in some cases is ushered in by profuse sweating, while in others there is free perspiration during the greater portion of the course of the disease. Most cases have some headache and muscular pains involving the entire muscular system, while in some the pains partake of a rheumatic character.

As an epidemic it is remarkable for its extensive and rapid diffusion, spreading over a whole continent in a short time, and in apparent waves of varying severity of the symptoms. It is a self-limited fever, in mild cases, with the respiratory and intestinal catarrh as mere local expressions of the constitutional disease.

Etiology. It is impossible to speak definitely with regard to the etiology of this disease. While the majority of epidemics occur during the winter, but very little influence is exerted by meteorological conditions. Flint says that owing to the fact of its "being an infectious disease the germ theory offers the most rational view of its etiology."[1] Prof. H. C. Wood says—"it is undoubtedly a specific disease—in all probability the result of a specific poison—it seems to me to be imparted from man to man."[2] Dr. J. Howe Adams says—"the fact that it is in some way extremely contagious is generally accepted by the profession."[3] Dr. J. William White[4] likewise reaches the conclusion that it is contagious from the development of nineteen cases in the relatives and friends of a patient dying in Europe, in December, 1879, when the corpse was brought to Philadelphia, there being no influenza in America at that time. Dr. Edward Martin says—"from the clinical aspect the question of contagiousness seems to me as clearly demonstrated as is the contagiousness of any known disease."[5] Frey (*Deutsche Medicinische Wochenschrift*, March 10th, 1891) believes that influenza is due to a specific micro-organism."[6] Pfeiffer (*Deutsche Medicinische Wochenschrift*, January 14th, 1892), "examined thirty-one cases of influenza, and in all he found a peculiar bacillus in the bronchial secretion, in almost pure culture in uncomplicated cases. They were frequently within the pus-cells. The same bacillus were found in the peri-bronchial tissue in some cases. Control experiments show the bacilli to be absent in ordinary bronchial catarrh. The increase of the bacilli kept pace with the disease. They are small rods about the thickness of the septic bacilli of mice, but only half their length. Three or four are often joined in a chain. If great care is not taken they will be confounded with diplococci or streptococci. Inoculation experiments have been made successfully in apes and rabbits. He believes it to be the cause of influenza. Kitasato (*ibid*) made cultures of these bacilli with similar results. Canon (*ibid*) searched the blood of twenty influenza patients and found the same bacillus in all. This he thinks is the same as the one described by Pfeiffer. He did not find the organism in the blood of all influenza patients, at least those having fever."[7] Herzog (*Archiv für Kinderheilkunde*, Vol. xiv, Part 6th, 1892) believes that "one attack does not give immunity to a second attack.

*Read before the Montgomery County Medical Society, (Pa.), March, 1893.

1 *Flint's Principles and Practice of Medicine*, Fifth Ed. p. 237.

2 *Univ. Med. Mag.*, Vol. II, No 6, p. 309.

3 *Univ. Med. Mag.*, Vol. IV, No. 5, p. 353

4 *Univ. Med. Mag.*, Vol. IV, No. 5, p. 355.

5 *Univ. Med. Mag.*, Vol. IV, No. 5, p. 361.

6 *Univ. Med. Mag.*, Vol. III, No. 10, p. 638.

7 *Univ. Med. Mag.*, Vol. IV, No. 6, p. 458.

All persons were liable to be attacked, no condition or age protecting against it. He believes the disease is highly contagious, and that the incubation stage is from three to six days."[8]

Symptoms. The symptoms of this disease vary much with the organs involved. The initial chill, or even the chilliness in milder cases, is followed by moderate or high fever according to the amount of systemic involvement; the headache, lumbar and muscular pains are rapidly followed by undue prostration; and the development of catarrhal irritation of either the respiratory or digestive tract, is the usual course of the milder form of cases. In the cases where the catarrhal irritation involves the bronchial tubes there is always irritating cough with copious expectoration in the later stages. As a complication in these cases we may have well-marked pneumonia developing, though more generally the disease does not progress farther than the congestive stage; or it may take the form of capillary bronchitis. The apparent lung involvement is sufficient to warrant the anticipation of pneumonia, but in robust patients it is often relieved by prompt treatment.

In cases where the catarrhal irritation involves the gastro-intestinal mucous membrane we have developed profuse diarrhœa with abdominal pains of considerable intensity. Distressing vomiting may also be present. This form of the disease frequently simulates typhoid fever but can be readily distinguished by carefully noting the temperature movement. In those cases taking the form of gastro-intestinal catarrh the symptoms may be mild and merely simulate an attack of acute indigestion, or, in the severer form, all the symptoms of a violent gastro-intestinal inflammation may be present, with severe abdominal pains, profuse vomiting and free diarrhœa. All these symptoms, however, quickly abate under the action of revulsives and other appropriate treatment.

In those cases taking the form of respiratory catarrh the symptoms may rapidly deepen into a condition of severe catarrhal pneumonia, especially in children, the aged and debilitated, and is frequently accompanied with pleuritic and pericardial involvement. The congestion of the lungs often takes on the form of crupous pneumonia, which, in robust patients, however, readily abates under appropriate treatment.

In a smaller proportion of cases the disease does not take on a distinctly catarrhal form but manifests itself by fever accompanied with severe nervous symptoms and with unusual depression. In many of these cases the heart is the most important indication of the nervous depression. In these cases we have nervous derangement ranging in severity from the mildest form of neurasthenia to those of insanity in the form of melancholia, confusional insanity, or active delirium simulating mania.[9]

Diagnosis. The diagnosis must be based on the character of the combined symptoms; on the presence of epidemic influence; on the excess of fever and other constitutional disturbance to the amount of local disease, and on the development of fever before the manifestation of the local disease; on the suddenness of the onset, and the persistence of debility during convalescence; on the marked tendency to sweating; and by the exclusion of other diseases.

Prognosis. The prognosis, in mild cases, is favorable. It is only in cases presenting organic complications, and in the very young and the old and debilitated, that an unfavorable termination is likely to result. Death usually results from some form of lung complication, nervous exhaustion or heart failure, or even all three combined. I lost three cases during the epidemic of 1891–'92; each from double pneumonia, two in aged, debilitated patients, and the other a case of organic heart disease. The exhaustive nature of the disease, with the profound disorganization of the blood, and the many complications that may possibly occur, makes this a more than usually grave disease. Even after apparent convalescence has become established there may be ultimately a fatal termination for secondary causes, more especially from consumption; but also from heart, liver and kidney diseases developing in the debilitated convalescent.

Treatment. The treatment of this disease, as a rule, does not call for active measures. Absolute rest should be en-

[8] *Univ. Med. Mag.*, Vol. V, No. 5, p. 338.

[9] Dr. F. X. Dercum, *Univ. Med. Mag.*, Vol. IV, No. 5, p. 369.

joyed, and all severe cases must be at once confined to bed. Camphor is claimed by some physicians to be a specific but my experience with it, though limited, does not bear out the assertion. Sinapisins, diophoretics, anodynes, quinia with supporting diet, includes all the more important measures, in the usual order, in which I found most satisfaction. The various constitutional manifestations and the different complications had to be met by the appropriate measures for which they called. For the severe headache, backache and muscular pains I invariably used the antipyretics—salicylate of sodium, acetanilid, phenacetine, and antipyrin, guarding against too large doses so as to avoid depressing the heart action. The irritating laryngitis and bronchitis were most readily subdued with free sweating, the administration of Dover's powder and the application of sinapisms, followed by ammonium chloride and quinia during the convalescing stage. The vomiting and purging in the gastric form of the disease were combated by sinapisms to the epigastrium and even over the whole abdomen, with the subnitrate of bismuth and powdered opium internally, followed by quinia after the acute trouble had passed. In the cases presenting heart weakness the use of digitalis and caffein, with strychnia, quinia and alcoholic stimulants, was generally followed by favorable results. The nervous symptoms were best met with tincture of cinchona and tincture of mux vomica, or the alkaloids strychnia and quinia. All through the disease, if the digestive tract permitted, a supporting diet was ordered, with strict injunctions against fatigue and exposure. Early exposure, or even undue exposure after considerable time had elapsed, was almost invariably followed by a relapse of a more serious nature than the primary attack, and usually with graver complications and a more prolonged convalescence.

TWO CASES OF GALL-STONES, WITH ULCERATION OF THE GALL BLADDER INTO THE INTESTINE.

JOHN M. CURRIER, M. D., Newport, Vermont.

Case I. On January 18, 1888, I was called in council to see Mr. D. L. H., affected with jaundice; aged about sixty; jeweler. He had been subject for many years to attacks of "bilious colic," accompanied with severe pains in the abdomen. These attacks were always followed by a deep jaundice. This attack was like the previous ones, but much more severe. There was deep jaundiced color of the skin and conjunctivæ; the urine heavily loaded with bile; the stools were infrequent and clay colored; nausea, loss of appetite, and several degrees of fever. This physician had diagnosed gall-stones, with obstruction in the common duct. All the symptoms became more aggravated, particularly the jaundice; and there was complete absence of bile in the stools. The patient continued to grow weaker for about three weeks. I was informed by his attending physician that he had a discharge from the bowels about that time, when the nurse heard something hard strike the bottom of the bed-pan. On examination there were found over sixty gall-stones, agglutinated into one mass by recent deposit of thick bile. They were easily separated, and were quite uniform in size, being about that of large peas. The stools were spoken of as being very offensive. They were loaded with a large amount of dark bile, and from that time on the stools contained the usual amount of bile. The patient began to improve immediately, and continued to do so though slowly, until tolerable good health was obtained. There is no doubt but that this patient had an ulceration through the coats of the gall-bladder and contiguous intestinal wall, this being a natural cure, although the function of the gall-bladder as a reservoir for bile is destroyed, and the bile would flow into the intestine as fast as formed ever afterwards. One other case illustrates the diagnosis in this one and I will relate it.

Case II. Rev. A. R. G., aged about sixty-five, had for many years occasional attacks of severe "bilious colic," which

had always been relieved in a few days, but invariably followed by jaundice. A short time would suffice to regain his usual health, although he always had a sallow complexion. His last attack had all the symptoms of the previous ones, but much more severe. His physician had given blue pill which he followed with castor oil after the case had gone on about seven or eight days. The dose of castor oil was a large one, producing much griping; the pain in the abdomen continued to increase for about twenty-four hours when the patient died. I saw the patient only after death, and made the autopsy. On opening the abdomen there was extensive peritonitis, more strongly marked over the region of the liver. There were adhesions of the gall-bladder to the intestines by recent hymph, but there was a rent of these new adhesions; allowing gall-stones to flow out into the abdominal cavity. There had been formed an opening, from ulceration, from the gall-bladder to the intestine previous to the tearing asunder of these new adhesions.

Gall-stones, too large to pass the common duct were found in the intestinal canal, in the gall-bladder and abdominal cavity.

It was decided that, had not the blue pill and castor oil been given, the patient might have recovered completely from "bilious colic" and gall stones.

These two cases illustrate the advisability of laparotomy and removal of gall stones, or the establishment of a passage into the intestines.

SOCIETY REPORTS.

GEORGIA STATE MEDICAL ASSOCIATION.

Proceedings of the Forty-Fourth Annual Meeting, held at Americus, April 19th, 20th and 21st, 1893.

FIRST DAY—MORNING SESSION.

The Association convened in the City Hall and was called to order by the President, Dr. A. A. Smith, of Hawkinsville, at 10 A. M.

Prayer was offered by the Rev. A. M. Williams.

An address of welcome was delivered by Mayor A. S. Cutts, which was responded to on behalf of the Association by Dr. Mark H. O'Daniel, of Macon.

The first paper read was the President's Annual Address, by Dr. A. A. Smith.

President Smith said that Georgia had her boards of education, her boards of trade, and her various other boards, but she had no board of health. The sanitary condition of her two million inhabitants, dwelling within the borders of 137 counties, should be looked after and cared for in an official way; and a board of health, composed of the best medical talent in the State should be established for that purpose. He knew of nothing that would be more conducive to the protection of the general health and prosperity of the people than the permanent establishment of a State Board of Health. He also recommended the permanent establishment of a State Board of Examination, and said no one should be allowed to practice medicine within the borders of the State until he shall have passed a rigid and satisfactory examination under this board, and received therefrom a certificate of proficiency. This would drive away quacks, and thereby not only protect the health and the lives of the people, but also the honor and the dignity of the profession. Furthermore, the curriculum of medical institutions in Georgia should be raised to a higher standard. Nothing less than the three course system should be tolerated, and each of these courses should be made broader, deeper, and more comprehensive. With a State Board of Health, and a State Board of Examination permanently established, and the curriculum of the Georgia medical schools raised to a higher standard, the profession would greatly accelerate the onward and upward progress of such a cause, and as it moved up onward and upward, higher and higher, mantled

with the glory of its past, and crowned with the splendor of its future, God's truth would bloom upon its brow, and God's approbation rest upon its work.

Dr. C. C. Hart, of Cross Keys, read a paper entitled "Shot-gun Prescriptions" in which he asked whether it was right to make what is known as "shot-gun" prescriptions. Personally, he thought it was not right, because it increased the difficulty of prescribing, and made the therapeutic action of medicines more uncertain and consequently less safe for the patient. We should strive to make medicine an exact science, which we could never hope to do without exact knowledge; and how are we to know what effect a certain medicine has when it is combined with several other medicines, some of them perhaps of an antagonistic nature?

Dr. J. I. Darby, of Americus, contributed a paper entitled "Puerperal Septicæmia and its Treatment."

FIRST DAY—AFTERNOON SESSION.

The first paper read was by Dr. J. M. Head, of Zebulon, entitled "Puerperal Eclampsia, with a Report of Cases."

True eclampsia might differ from epilepsy clinically, but the paroxysms of each were essentially the same. We find in eclampsia occasionally premonitory symptoms which, if properly interpreted by the obstetrician, will put him upon his guard and sometimes enable him to ward off the attack. However, in a considerable number of cases the symptoms are so slight as to escape detection, and suspicion is not aroused until severe convulsions are on. Hence we find it is of practical importance to bear well in mind the most common of the symptoms which are associated with cerebral troubles, such as severe headache, either general or unilateral, spots before the eyes, dizziness, blindness, vertigo or impairment of the intellectual facilities which are occasionally observed. Again, we see symptoms manifested in restlessness, irritability of temper, stupor, general indisposition, œdema of the cellular or subcutaneous tissue, shown by swelling of the lower extremities; but this one symptom bears with it a much more serious import when it is observed as occurring in the upper extremities or a swollen face. These symptoms are sufficient to excite the most serious apprehensions and lead us to make examinations of their causes.

So eclampsia should be considered of a functional nature through reflex influences, as chorea is an occasional feature of pregnancy. For the purpose of elucidation the speaker mentioned the prominent disorders of the pregnant stage.

"Contagiousness of Consumption." Dr. J. G. Hopkins, of Thomasville, read a paper on this subject. The speaker said he had joined the growing army which placed tuberculosis in the category of contagious diseases, and his experience with this disease during nineteen years of investigation in Thomasville—which place is a resort for consumptives—bore him out in his opinion, and made him a willing subject of the great and erudite Koch. He does not doubt but that all men, women and children at some time or times receive into their air passages, the tubercle bacilli, but fortunately the great majority possessed the power of repelling them and throwing them off—they did not find that soil, so to speak, which is adapted to their growth. Indians in a state of nature seemed impervious to the germs of consumption, but were now dying by thousands on the reservations. The whites and the blacks in prisons and asylums all over the world labored under similar conditions. A report from the Illinois State Prison at Joliet says that there are 1400 convicts within the walls, and fully one-third of them have consumption in a light or bad form. Nearly all deaths of persons in the penitentiary have been caused by consumption.

Dr. Hopkins emphasized the danger that lurks in sleeping cars, in carpets, bedding, clothing, and in the walls of apartments occupied by consumptives, which have not been properly renovated and rendered harmless by antiseptic measures.

Consumptives should be forced to provide for the destruction of sputa. Whenever situated so as not to expectorate directly into a germicide or the fire; they should use some means of conveying the sputa to the germicide or the flames. If handkerchiefs or cloths are used, they should not be sent to the laundry as human happiness and life are jeopardized through the probability of inoculation through abrasions upon the hands. These bacilli should never be allowed to dry up

and impregnate the air, as is now done through ignorance of possible result. Numerous experiments by leading medical authorities have proven beyond doubt that consumption is an inoculable disease, and so rapidly is the throng of converts growing that the speaker would not be surprised, if, even in his day, resorts now solicitating the patronage of the consumptive will be quarantining against him.

Dr. J. MacFadden Gaston, of Atlanta, read a paper entitled "Science in Medicine and Surgery."

He said at this time the medical profession was undergoing a most interesting transition from the extreme views which had been held by some in regard to the employment of germicides in surgical practice. There was a time within the past decade when it was deemed to be scientific and progressive to use antiseptic measures of the most energetic kind in all operations, whether there was a septic element to combat or not. But, thanks to the mature investigation of the effects of germicides upon normal structures by bacteriologists for this class of work, it has been demonstrated that the so-called antiseptic agents are capable of setting up septic processes in healthy tissues. The tables are now turned, and instead of a surgeon being compromised by eliminating germicides from his surgical procedures in ordinary cases, and confining his irrigation of recent wounds to simple sterilized water, it is he who departs from this course by the employment of solutions impregnated with toxic agents who is held responsible for the consequence of their absorption. In case there is a healthy and normal state of structures involved in a cutting operation, there can be no indication for antiseptics, and their use is only calculated to do harm by absorption, and the best men in the profession have ceased to employ them. The most energetic and hence the most likely to cause mischief is corrosive sublimate. Dr. Gaston quoted Dr. Vance of Louisville as saying that it was beyond all doubt that the present position of bichloride was rather against its use, and that it did more harm than good, as demonstrated by Welch and Abbott.

Dr. Mark H. O'Daniel, of Macon, read a short paper on "Multiple Neuritis, Alcoholic," and reported a case. The patient was 36 years of age, fleshy, short build, short neck, florid complexion, a bilious temperament, and a book-keeper by occupation. The patient had taken but little exercise for quite a long while except in the elbow joints. He came of a nervous ancestry, having an aunt who had died of climacteric mania and other relatives who had been insane for a short time, showing beyond doubt a predisposition on part of the patient to nervous trouble, which if it had not existed, the use of alcohol might not have precipitated the disease in question. The patient drank from one to two quarts of whiskey a day, that is during twenty-four hours. He had all the symptoms of such cases. Under appropriate treatment the patient made a good recovery.

Dr. Willis F. Westmoreland, of Atlanta, followed with a paper entitled "Syphilis from a Sociological Standpoint," in which he said year after year, particularly in the clinics, syphilitic subjects, a great many of them women, came before him suffering from this disease in all its stages, from the original lesion to the worse ravages of the second and tertiary stages, with mucous patches and syphilitic ulcers covering them. And when he found upon investigation, many of them servants, occupying various household positions as chambermaids, nurses, cooks, waitresses, etc., he could not but think that God protects the family exposed to the baneful contamination of their service, and particularly the poor little defenseless ones whom they nurse, and with whom their relations are so intimate. Any one who has not investigated the subject will be overwhelmed with surprise at the number of cases acquired otherwise than by sexual intercourse, and the various means by which it has been transmitted. Physicians and dentists are themselves exposed, and likewise expose their patients to these dangers. Thousands of physicians and midvives in the practice of their calling, in examining and operating on syphilitic subjects, or by post-mortem, are exposed. Dentists by having their fingers scratched against a rough tooth or instrument, while working on a subject whose mouth is filled with mucous patches. On the other hand, many more patients are infected by the carelessness of physicians.

SECOND DAY—MORNING SESSION.

Dr. W. H. Elliott, of Savanah, addressed the Association on "Elastic Constriction as a Hæmostatic Measure," his remarks being a review of Senn's method. He said the Association was familiar with Esmarck's method, which consisted in putting on an elastic bandage from the periphery slowly and gradually so as to empty the limb of blood, putting it on up to a point just above where the surgeon is going to operate. He then puts on a narrow elastic band at that point so as to cut off the circulation from the limb entirely, then removing the compression bandage to go on with the operation, which he had fitly called "a bloodless operation." Esmarck was not the inventor of the bloodless operation, but surgeons were indebted to his genius for improving its technique and for making this established method a popular procedure in surgery. The speaker then stated the two grave objections against the method as used by Esmarck, as advanced by Dr. Senn. The first objection was that forcible compression of blood out of the tissues by an elastic bandage was liable to send into the surrounding tissues the elements of microbic and malignant diseases. Cancer cells may thus be scattered and disseminated through the system, or the cells of pus or of tuberculosis might be sent abroad to do damage elsewhere. The second objection raised was that the constricting of the limb with a tube or a narrower bandage at one point was liable to do injury first to the muscle and secondly to the nerve. Dr. Elliott had used Esmarck's method as modified by Dr. Senn with great satisfaction.

Dr. O. H. Buford, of Cartersville, reported a rare case in obstetric practice, showing the effect of hour-glass contractions on fœtus.

Dr. W. P. Williams, of Blackshear, read a paper entitled "Persistent Remittent or so-called Typho-Malarial Fever." The author gave an analysis of a few cases of persistent remittent fever, touching its diagnosis and differential diagnosis from typhoid fever especially. He presented the clinical side of the matter, as his investigations extended no further. He presented three forms for consideration. *First*, the abortive form, or such as are immediately amenable to treatment. *Second*, the continued form with low temperature. *Third*, the continued form with high temperature. Under the first form, he was called to see the case of a negro that had been sick about a day. He found a temperature of 106°, no other striking symptom. He gave him fifteen grains of quinine, and left two other doses to be repeated at six-hour intervals. His diagnosis and prognosis were persistent remittent fever with the prospect of a long siege. He returned the next morning and found that the patient was up and gone.

The value of a diagnosis between these maladies was apparent when we came to the subject of treatment. The treatment which the speaker had followed, which had proven reasonably successful in persistent remittent fever, was the antimalarial preparation, principally cinchona and its derivatives, and arsenic, which with cholegogue cathartics (most frequently calomel) at stated intervals, applying other medicines as they were indicated. This treatment, while very beneficial in a large number of malarial cases, he would consider utterly useless and even dangerous in applying it to typhoid fever cases. The author closed his paper by saying that for every degree in rise of temperature there was a corresponding increase of heart action from eight to ten beats. In several of his cases of this fever this ratio was completely destroyed, and in some the reverse took place.

Dr. M. L. Currie, of Mt. Vernon, read a paper entitled "Periproctitis with an Abscess and Report of a Case." He said periproctitis was one of those infrequent inflammatory diseases which the general practitioner might at any time be called to treat, and which he might fail to recognize until much damage to his patient ensued. It is usually suppurative in character, but a cure may be effected by absorption even after a distinct tumor is formed. Of the cause of the disease but little can be said. It may result from traumatism, foreign bodies, extension of adjacent inflammatory processes, or any structural disease involving the mucous membrane of the rectum. The manner of its extension and the course of the morbid processes excited, are identical with those seen in perityphlitis following ty-

phlitis. The prognosis depends much upon the time when a diagnosis is made, the treatment of both the inflammation and the abscess as well as the physical condition of the patient. When the vitality is low, and the abscess high up in the pelvic cavity, or when the patient is tuberculous it is unfavorable; when otherwise, we may hope for recovery. The author then gave the diagnostic symptoms and the treatment in connection with the case he reported.

Dr. R. R. Kime, of Atlanta, followed with a paper on "Ectopic Pregnancy, its Pathology, Symptoms and Treatment." After dwelling upon the pathology and symptoms, the author summarized the treatment as follows:

1. In primary or secondary intra-peritoneal rupture of ectopic sac operate by cœliotomy at once.

2. Before primary rupture with diagnosis of tubal pregnancy extirpate cyst, tube and ovary. Fœticide for this condition by electricity and morphia injections are but temporary expedients suitable for cases of doubtful diagnosis, or where a competent operator cannot be obtained. Their use only allures patients into a false hope of security when delay is dangerous. If diagnosis could be made in the first three or four weeks of pregnancy then electricity might accomplish more potent results.

3. With extra-peritoneal primary rupture into broad ligament in early weeks of gestation producing pelvic hematocele, wait for absorption of effused blood; if it fail, then perform cœliotomy or vaginal drainage.

4. If child survives primary rupture of tube into broad ligament, do not commit murder, keep a clean conscience toward God and man, let fœtus live, keeping patient under strict observance ready to operate at any time when life of patient demands it, or fœtus has at least reached a viable period. By waiting for development of fœtus and cyst as Tait claims, the peritoneum is pushed up on the side in which they are located, so that in later months of pregnancy a lateral incision will enter cyst, and fœtus may be extracted without entering abdominal cavity.

5. Surgical interference should be the rule in all cases of ectopic pregnancy reaching full term even after spurious labor and death of fœtus.

Dr. Luther B. Grandy, of Atlanta, read a paper entitled "A Board of Medical Examiners; the State's Medical Duty," in which he suggested, in November last, the advisability of taking steps toward the establishment of a board of medical examiners in Georgia. The question under discussion was one which touched every home in Georgia, into which sickness or accident would surely come at one time or another. There were two classes of so-called doctors from whom the people of this and every State need to be protected. One was the ignorant practitioner without capacity, the other was the unprincipled charlatan without conscience. The absence of such a board and the fact that a diploma was a license was but throwing down the bars to all the incompetent and fraudulent who were being rejected in other places. And here was the point of the matter which was of the most interest to physicians, because it had such a bearing upon the *personnel* of the profession of the State. If the medical profession in Georgia was to be made up largely of those who had been refused by other States on account of incompetency or dishonesty, then it was time we were entering our protest at once. There were about 2,700 physicians in Georgia, and still they came, and all were welcome. None were ever rejected. By a reasonable estimate about 700 of these would have been declared unqualified in other States. There had been nearly 400 rejections by the Virginia and North Carolina boards within the last seven years. What became of all those persons who were examined and declined by the boards of New Jersey, Virginia, North Carolina, Florida, Alabama, Illinois, Minnesota and other States? Our neighbors, Alabama, South Carolina and Florida, have rejected respectively 20, 29 and 30 per cent. of their applicants. Where do these people go? As for the quacks, when driven from one place they quickly take refuge in another. They change their sky but not their affections (*Cœlum, non animum, mutant*). Like other moving bodies they travel along the lines of least resistance until they find some place still willing to receive and patronize them. Dr. Grandy closed by saying that if Georgia would like to divorce the right to practice medicine from the empty honor of having a diploma; if she would like to bring about

higher standards in her medical schools and stimulate her students to higher aims; if she would like to improve the *personnel* of the medical profession in the State and endeavor to make it what it should be, an intelligent, honest and conscientious body of physicians; then let there be established a Board of Medical Examiners who shall be untrammeled of any college connections, and who shall determine whether a given applicant is qualified to practice medicine in Georgia.

Dr. Arthur C. Blain, of Macon, contributed a paper entitled "The Practice of Medicine in Georgia." He called attention to the want of laws governing the practice of medicine in the State. He also emphasized the importance of creating a State Board of Medical Examiners. Georgia was made a dumping-ground for all who failed to pass the requisite examination to obtain a license to practice in Virginia, Florida or Alabama. State Boards not only afforded protection to the people from charlatans and unqualified practitioners, but exerted a salutary influence towards elevating the educational standard of the medical profession. The speaker recommended that a committee be sent to Atlanta during the next session of the legislature to assist in formulating and passing some good law that would meet the requirements of the case.

Dr. J. C. Avery, of Atlanta, followed with a paper on "State and Municipal Hygiene."

The three papers were ably discussed by Drs. C. D. Hurt, R. O. Engram, Willis F. Westmoreland, W. H. Elliott, F. W. McRae, M. B. Hutchins, and a committee of one from each congressional district appointed for the purpose previously outlined.

SECOND DAY—AFTERNOON SESSION.

Dr. C. D. Hurt, of Atlanta, read a paper entitled "Etiology of Puerperal Eclampsia; its treatment, with report of some Typical Cases." After a careful study of various authors and summing up his observations and experience at the bedside, the author felt warranted in offering the following conclusions: (1) That eclampsia gravidarium in every case is the result of some influence which is directly or indirectly exerted upon the nervous system causing a derangement of its functions. (2) That such influences may exist singly or be cooperative, and that such influence may be direct violence or mechanical pressure. (3) That one or more of these influences may reach the nervous system by absorption or through the circulation. (4) That by chemical changes wrought under certain conditions in the system, toxic elements may be created and proved deleterious. Again, certain elements are harmless as they exist in normal proportions in the constitutions, but exert a toxic influence in abnormal quantities. Urea as a toxic element abnormally increased by retention in the system is assigned by many as the most frequent cause. Yet there are some who do not hold to this opinion. All admit that eclampsia and uræmia coexist in a very large per cent. of cases, while they disagree as to their relation of cause and effect. Furthermore, all admit that uræmia cannot be found to exist in every case of eclampsia, therefore, other causes than uræmia can and do produce eclampsia. That in every case irritation may and does exert an influence which materially aids in bringing on a seizure, and that in many cases this irritation intensified by protracted labor, hard pains, unyielding os and exhaustion of the nervous system develops eclampsia. That a plethoric condition of the patient, full habit, distended blood vessels, increased susceptibility to an apoplectic condition and excessive irritability, and that with this plethora a crowding of the blood into the lungs and upon the brain materially interfere with the functions of the nervous system. That the emotional system is not silent in some women, and that it helps to precipitate the fit.

Dr. H. McHatton, of Macon, read a paper entitled "Four Women who Refused Oophorectomy and their Subsequent Histories." The author gave a brief resume of the histories of the only four women that he had ever known who refused the operation. The time that had elapsed since it was advised varied from eighteen months to twelve years. The speaker made the point that in each case the operation was advised and urgedby gynecologists of standing both North and South; consequently they must have been convinced that they were cases demanding operative interference. In a practice of twelve years he had had occasion to rec-

ommend the removal of the appendages once, excepting cases of ovarian tumors, and that one proved to be a case of pyosalpinx. Several of his patients had drifted into other hands and had oophorectomy performed, and as far as he could learn had been disappointed in the results each time. The best men in this special line of work were doing the operation less and less each year. Their place was being amply filled by lesser lights, with smaller numbers of individual cases, but with a yearly aggregate that is terrible to contemplate. By what combination of circumstances could one man, to fame unknown, in a small interior city, and in a short space of time, find 144 cases demanding abdominal attention?

Dr. C. H. Peete, of Macon, contributed a paper on "Partial Tenotomy, A Radical Cure for Heterophoralgia." The author finds that the majority of cases suffering from heterophoralgia are those of young adult life, or that they have been sufferers since that time. He accounts for it by the fact that we know in order to cause it the patient must concentrate his vision on an object, and the length of time of this concentration governs the intensity of suffering. In children the vision is never fixed on any part for a length of time, consequently the symptoms are not brought on. In young adults, who have acquired the habit of hard study and constant close work, it occurs frequently, and we will find in most cases that it commenced with the time of their beginning to work or a short time after. The muscle tests should be applied to every case that came to the occulist for refraction work, and when he finds these deviations existing he should resort to the radical relief, partial tenotomy.

Dr. F. W. McRae, of Atlanta, read a paper entitled "Stone in the Bladder, with Report of Cases." He dealt with the etiology, symptomatology and treatment of stone in the bladder, purposely avoiding extensive details and references to authorities. The chief predisposing causes were defective digestion and assimilation, due either to improper diet, to a preponderance of solid over liquid ingesta, or too high living coupled with insufficient exercise and imperfect oxidation. There is an excess of the solids of the urine. These are only predisposing causes and others such as mucous, pus, etc., due to inflammatory conditions of the urinary mucous membrane, must be present before stone in the bladder will result. A history of nephritic colic not followed by the expulsion of the gravel through the urethra would naturally lead us to suspect the formation of stone in the bladder when followed by irritation of that viscus. Only when the stone can be felt by the searcher and the characteristic click elicited are we sure of the presence of calculus in the bladder. In one of the cases which the author reported the symptoms were characteristic of stone in the bladder, although no stone was found. The operation was a brilliant success in relieving the patient of a most violent cystitis of long standing. The author then dealt with the methods of treating stone in the bladder and said that no method had so wide a range of applicability and as low a death rate as litholapaxy (Bigelow's operation). He had, however, no personal experience with it, as the cases thus far presenting themselves to him were such as might be best treated by other procedures. This operation offered much the best results except in very young children, very large or very hard stones, or where there was co-existing tight organic strictures or enlarged prostate of such character as to prevent the introduction of the lithotrite, or where there was a violent cystitis associated with stone. For large stones associated with prostatic or vesical tumors the high operation was undoubtedly far superior to the perineal operations. Small stones associated with stricture of the deep urethra or violent cystitis were best treated by the median operation. Nor was the lateral operation to be entirely set aside for the now more popular operations of litholapaxy and supra-pubic lithotomy. Each of these operations had its proper field of usefulness, and it was only by a careful selection of the methods of treatment that the best results were to be obtained.

Dr. W. R. Googe, of Abbeville, reported a case of fracture of the skull with protrusion of the brain substance and removal of same.

THIRD DAY—MORNING SESSION

Dr. J. B. Holmes, of Rome, read a lengthy paper on "The Technique and After-Treatment of Ovariotomy." The

author offered the paper as an *expose* of the methods adopted and successfully used by him in his abdominal work. He submitted the paper with the earnest hope that it might elicit a full and free discussion from all who might be interested in this line of work. By such discussions our methods may be compared and those adopted that promise best results to our patients. No one could truthfully say that in every particular his method was the best. While we might in the main agree, yet on slight and seemingly indifferent details might hinge the successful issue of our cases. He stood ready and willing to take any suggestions from his brother surgeons if he could get better results by so doing. The author then took up each step *seriatum* of the technique and after-treatment,

Dr. Frank M. Ridley of La Grange, then delivered the Orator's Address. He selected for his subject "Woman's Relations to the Practice of Medicine."

Dr. M. B. Hutchins, of Atlanta, contributed a paper entitled "Mechanical Treatment of Some Skin Anomalies." The author dwelt upon some of the various mechanical means of removing anomalies of the skin. The destruction of superfluous hairs, of moles, birth-marks, and the various simple growths of the skin were described. In 1879, Dr. Michel, of St Louis, successfully employed electrolysis for the destruction of hairs in trichiasis. Dr. Hardaway, a dermatologist of the same city, followed the idea in the tratment of hypertrichosis. Various dermatologists had since reported upon its successful use. Hair upon the lip and face of women afforded the usual field of operation. Three to eight cells of a galvanic battery were used. For the past two years Dr. Hutchins had used some "Law" cells put together by himself, containing as the fluid an aqueous solution of sal ammoniac. For the destruction of hairs five of these were sufficient, though they had not been filled in two years. Seven of these cells sufficed for ordinary moles. To the negative pole a pencil-shaped needle holder containing a number eight or twelve sewing needle is attached, while the positive pole is provided with the usual sponge electrode. The needle is attached to the negative pole for the reason that electrolysis through the positive will leave a black dot at the point of insertion of the needle. The author prefers the needle holder having a spring for opening or closing the circuit, as this leaves the entire control of the circuit to him, the patient steadily holding the well-wetted sponge electrode in one hand instead of having to open and close the circuit by letting go or catching hold of the sponge. The needle is carefully inserted into the hair follicle, parallel to the root, until slight resistance, the bottom of the follicle and the seat of the hair papilla is felt. The circuit is then closed and the current allowed to pass until a frothy substance the size of a small pin head fills the follicle, and a small area of blanching appears around the needle. If the needle has followed the course of the hair root and remained in the follicle, the pain is less than when the root sheaths are pierced, and the frothy substance is more abundant. If the hair is easily pulled out it is reasonably certain that there will be no regrowth, but if it pulls out with difficulty or breaks off, the current must immediately be reapplied. A pair of forceps made for the purpose are used to extract the hairs.

Dr. Hutchins then reported several interesting cases which he had treated successfully by electrolysis.

The following officers were elected:

President, Dr. W. H. Elliott, Savannah.
First Vice-President, Dr. G. T. Miller, Americus.
Second Vice-President, Dr. H. McHatton, Macon.
Secretary, Dr. Dan. H. Howell, Atlanta.
Treasurer, Dr. E. C. Goodrich, Augusta.

The next Annual Meeting of the Association will be held in Atlanta.

A Georgia Editor Wants His Money.

The following is from the pen of a Georgia editor who evidently had strong feelings on the subject: "The wind bloweth, the water floweth, the farmer soweth, and the subscriber oweth, and the Lord knoweth that we are in need of our dues. So come a-runnin' ere we go a-gunnin'; we're not funnin'; this thing of dunnin' gives us the blues."—*Ex.*

In measles, when the temperature is high after the eruption has faded, there are complications.

THE MEDICAL AND SURGICAL REPORTER

ISSUED EVERY SATURDAY

ADDRESS
Care P. O. Box 843, Philadelphia.

HAROLD H. KYNETT, A. M., M. D.,
Editor.

RODERIC C. PENFIELD,
Publisher.

316-18-20 North Broad Street,
PHILADELPHIA.

TERMS:—Five Dollars a year, strictly in advance, unless otherwise specifically agreed upon. Sent three months on trial for $1.00.

REMITTANCES should be made payable only to the Publisher, and when in sums of Five Dollars or less, should be made by Postal Note, Money Order or Registered Letter.

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SATURDAY, MAY 20TH, 1893.

EDITORIAL.

MEDICAL LEGISLATION IN GEORGIA.

Dr. Grandy has been untiring in his efforts to secure a higher medical standard especially in his own state, and under his direction the *Atlanta Medical and Surgical Journal* has exercised a powerful influence towards securing legislation to this end.

The current number of his journal contains a paper recently read before the Georgia Medical Association presenting the situation as it now obtains. The bill for the establishment of a Board of Medical Examiners in Georgia, after encountering rabid opposition from sources common all over the United States, passed the Senate by a nearly four-fifths majority but got tied up in the Committee of the House so that further action was postponed until the next meeting of the Legislature. Thus the bill may be considered as still pending. This ought to be encouraging to the gentlemen interested. They commenced operations last November and it would be miraculous to have enlightened an ordinary legislature on this subject in so short a period. Had the present set back been absolute it would only have delayed victory, for accept defeat these advocates of progress could not if they would. To give up is not a characteristic of the species.

Dr. Grandy's trenchant statements are made in plain words. Some of the comments are of more than local application, and the REPORTER presents them for the benefit of every friend of medical progress.

"There are two classes of so-called doctors from whom the people of this and every State need to be protected. One is the ignorant practitioner without capacity, the other is the unprincipled charlatan without conscience. A large proportion of the citizens of any State have not intelligence enough to protect themselves against these persons. Then it becomes the duty of the State to protect them. If those who offer their professional services to the community were everywhere what they should be, both in intelligence

and integrity, there would be no cause for legislation. But the disagreeable fact remains that the medical schools of the country every year send out young men totally unqualified for practice, while there are those so devoid of every sentiment of honor that they are willing to extract their dishonest livelihood by preying upon the ignorance and credulity of those whom they are able to deceive."

"The mistake which underlies the present law, if it may in charity be called a law, is in giving to a college diploma the authority of a license. This is indeed the *fons et origo mali*. In giving too much power to colleges, actuated as they may be and often are, by personal interests, to make them the judges as to the qualifications of those who wish to practice medicine. The mission of the college is to *teach* the student; to *license* him to practice is quite a separate and distinct duty belonging to a separate and distinct power. The President of Harvard University has said: 'Why is it that admission to the profession of medicine (in Massachusetts) is at a disadvantage as compared with admission to the profession of law? The very last thing the law school or the law faculty would desire would be that their degree would admit to the bar. It is a clear disadvantage in medical education that the degree given by a faculty, a teaching faculty, should admit to the profession. The standard should always be outside, determined by another power."

"The United States is the only country in the world in which this blunder is allowed. A diploma is no guarantee of professional fitness. The value and significance of a bare diploma are diminished now by the commercial spirit which plays too important a rôle in our teaching institutions Our law-makers may not know it, but it is a fact that there are too many teachers in our faculties everywhere who appear to believe that the success of their teaching plant is proportional to the amount of money that may be gotten out of it. It is this spirit which graduates students every year and declares them competent to practice a responsible profession who ought to be sawing wood or making brick."

"The medical degree can be too easily and cheaply gotten in this country. Did you know that there are places where a diploma may be bought for a mere song, and no questions asked? A New York *Herald* reporter recently bought the title "Doctor of Medicine" from one of these for fifty dollars. There are two hundred and twenty-five "graduates" of these bogus institutions practicing medicine *upon their diplomas* in Pennsylvania. For this sort of "doctor," so-called, conceived in sin and born in iniquity, an honorable people and an honorable profession can have nothing but contempt. I do not know if there is any of this unlawfully-begotten species in Georgia; but there may be, *and his diploma is his license.*"

"One of the most important and salutary results of this sort of legislation is its effect upon medical education. The existence of so many of these examining boards in the States has been one of the most potent factors in arousing the colleges of the country to better work. The latter know and appreciate that the character and thoroughness of their teachings will be measured by the fitness or unfitness of their graduates as determined by these examinations. The consequence has been that our system of medical education has been overhauled and improved within the last five years as never before."

"In medical education the proper solution lies in the application of the Malthusian principle: "Fewer conceptions and a prolonged period of gestation." As it is, we are having a premature delivery of young doctors every Spring. They come—

> Deformed, unfinished, sent before their time
> Into this (medical) world, scarce half made up,

and there is nothing to stand between them and the people among whom they choose to locate."

"In the hands of such persons the lives of the people are not safe, and there is properly no place for them in the profession.

In Pennsylvania it has taken years of patient, arduous effort to distract our legislators from their occupation of saving the country long enough to allow common sense an opportunity to exercise itself in medical matters of importance to the public. Just now success seems certain. The Medical Examiners' Bill, as outlined in the REPORTER, has been passed by both branches of the Legislature, and is in the Governor's hands. It will hardly fail to meet his approval.

FORTIFIED AGAINST MICROBES.

It is currently reported that the Faculty of Medicine, at Madrid, has established an antiseptic operating theatre on a principle entirely novel—and equally absurd—which, according to the *Medical Press*, has received the label, "Quirofano," which is being interpreted "transparent surgery." Those lively disease germs, whose activity and cunning have circumvented all measures hitherto devised to prevent their preying on humanity, are not only to be excluded from their victims, but are to have their disappointment deepened by viewing through impermeable glass the opportunities no longer theirs.

The patient, the surgeon, his assistants, all instruments, in fact everything connected with the operation is to be intrenched within a veritable wall of glass. Thus, the patient will be kept absolutely isolated. Spectators can witness all details of the work, likewise they can hear the remarks of the operator, we presume by telephone attachment.

This is trancendental antisepticism as well as unmitigated nonsense.

The festive microbe will continue to use his ordinary means of approach, *i. e.*, the finger nails, hands, clothing and person of the operator and his asssistants who believe that the free use of antiseptic solution absolves them from an assiduous and most pains-taking effort to secure personal cleanliness by exhibition of hot water, soap and scrubbing brush.

TRANSLATIONS.

Icterus and Acute Atrophy of the Liver following Syphilis.*

H. Senator says that early manifestations of disease in the liver and uterus, accompanying syphilis are almost unknown in Germany, while they are often observed in France. The jaundice runs a course of an ordinary catarrhal form if treated specifically. The observations of Engel-Reimer's of Germany agree fully with those of the French.

Senator has had no cases under his own observation but is a firm believer in specific jaundice. Its origin is explained in various ways.

Gubler thinks it analogous to that of the exanthema. Cornil and Lanceran explain its origin by the fact of glandular swellings in the portal hepaticus. Engel-Reimers is of the same opinion. Senator is inclined to favor Gubler's views and believes it to be due to inflammatory swelling of the intestinal mucous membrane.

Of greater importance is the appearance of atrophy of the liver following syphilis. Engel-Reimers saw three cases; Senator

*Translated for THE MEDICAL AND SURGICAL REPORTER by Marie B. Werner, M. D.

observes two cases of characteristic atrophy of the liver.

One case has been thoroughly cured in spite of grave inter-current diseases. The diagnosis is, nevertheless, indisputable, since there are other cases on record of cures in acute atrophy of the liver, for instance those of Leure. With these two cases of Senator's there exist in the literature only nine cases of this affection following early infection of syphilis; namely, two men and seven women. Mercurial poisoning can be excluded with safety.

In discussion Fleischauer reports a case in which an autopsy disclosed a large gumma in the liver and great swelling of the portal glands, following a case of icterus in early stages of syphilitic infection.

Bauer saw a case of recovery from atrophy of the liver which died three months later from miliary tuberculosis; the autopsy showed complete nerve function of the liver.

Quincke has had occasion to observe three or four cases of early syphilitic icterus; there were a few gastric symptoms. He is inclined to believe in the theory of compression of the Ductus Choledochus by swollen glands.—Extract from Twelfth Congress f. Med. Wiesbaden. *Deutsche Med. Zeit.*, 24–93.

Treatment of Drunkeness with Strychnia.*

Dr. Kellerman, reports a case of a widow, age 66, who has been a drunkard for sixteen years. During one of her sprees she sustained a fracture of the clavicle, and during the treatment of this, the strychnia injections were used. The patient's general health was below par, and for that reason only small doses of strychnia were at first administered. The solution of strychnin nitr. 0.02 to 10.0, of this solution ¼ gram was injected subcutaneously and increased after a pause of three (3) days to ½ gram.

The patient was told that these injections were solely given as a tonic. The patient, however, complained of increased restlessness, sleeplessness, drawing pains in the limbs, etc. After the fourth (4) injection she forbade any further injection. It was noticed that after the first two (2) injections, she still took small quantities of whiskey, but later seemed to have given up.

She has not been drunk within the last thirteen months, since the treatment, her strength has increased, she is again doing light work and insists that whiskey has lost its good taste and is deteriorating in its good qualities.—*Aerztl. Mittheil. Aus. w. f. Baden.*

Clinical Contributions on the Subject of Intestinal Occlusion.*

The author's (Prof. Hofmokl) contributions, based as they are upon personal experience, are of considerable value to the profession. The position taken regarding time and kind of operation, is first, radical operation as early as the diagnosis is definitely made, the results being in favor of "too early" rather than "too late" surgical interference; and second, that each patient should have the benefit of a doubt.

Forty-four (44) cases with their clinical histories in detail, which contain numerous points of interest, and are well worthy of careful study.

The classification of the cases operated on are as follows:

Group	Classification	No. of Cases	Kind of Operation	Recov.	Imp.	Death
1	Koprostase	1	Laparotomy	1		
2	Neoplasm					
	(a) Small Intestine	3	Resection	3		
	(b) Cœcum and Ascending Colon	6	" "	3		3
	(c) Sigmoid Flexure.	2	Anus preternaturalis		1	1
	(d) Rectum	2	Resection—Method of Kraske	1	1	
	(e) Vagina and Uterus	2	Anus preternaturalis		1	1
	(f) Peritoneum and Omentum	1	" " "			1
3	Cicatrical Stricture of the Small Intestine	1	Resection of Ileum and Cœcum	1		
4	Vermiform Appendix	4	Incision Laparotomy with Resection of the Intestines	1		3
5	Intra Abdominal Strangulation	8	Laparotomy	2		6
6	Gangrenous and Strangulated Hernia	9	Anus preternaturalis—Resection of the Intestines	6		3
7	Traumatic tear of a portion of the Intestines	1	Laparotomy			1
8	Occlusion of the Intestines—cause unknown	4	Anus preternaturalis—Laparotomy		1	3
	Total	44		18	4	22

In studying the results (50 per cent. mortality) we must remember that twelve cases were almost hopeless at the time of operation — *Klin. Zeib-und Streitsragen* Bd. IV., 1892.

*Translated for The Medical and Surgical Reporter by Marie B. Werner, M. D.

ABSTRACTS.

PRACTICAL HINTS REGARDING THE ADMINISTRATION OF MEDICINES OR APPLICATION OF REMEDIES.

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The giving of medicines often requires a little tact, and a knowledge of details helps exceedingly to the successful administration. Before entering upon these details, a few general remarks may be made.

First of all we would deprecate the practice often indulged in by the ignorant, and sometimes by those who should know better, of holding up the physician as a bugaboo and the administration of medicine as punishment, or, at the least, a thing to be dreaded. Medicines sometimes are unpleasant, more commonly need not be, and in any case it is the part of wisdom to prepare the way for a possible need by speaking of remedies as helpful rather than as objectionable, and of the physician as a family friend in time of need rather than as a beadle or nursery executioner.

Another general suggestion is this: Do not make a parade or fuss in getting your remedy ready. If anything of the sort be necessary, let it be done out of the child's sight and the remedy be brought when ready for administration; it may then be swallowed without objection, while, if time had been allowed, antagonism would have been excited. Make the giving of each dose as tidy as possible.

If doses are to be given frequently, or for some time, it is of help to make out on a slip of paper a schedule of hours for them, and as each dose is given, draw a line through that hour. This shows, afterwards, not only when the dose should have been given, but that it was given. The plan is especially useful to avoid confusion when more than one remedy is required.

LIQUID MEDICINES.

Liquids constitute the chief form of medicine given to children, owing to their inability, as a rule, to take other forms. If a medicine has little taste, or at least little disagreeable taste, this form is unobjectionable, but otherwise the other forms are preferable as soon as the child is old enough to take them, as in them taste can in one way or another be hidden. Medicines are sometimes insoluble and must be given in some more solid form. It should be remembered that some infants dislike to take anything into the mouth except by sucking. It is rather hard to teach such children to take even a drink of water from a cup or from a spoon. The giving of water even to the youngest suckling is always to be recommended, and it is an additional reason for so doing that by this means the child learns to take liquids from a spoon or cup, and has less difficulty in taking medicine in case an emergency arises. If a medicine is prescribed by a physician, learn from him just how it is to be given, even as to the amount of water in which each dose is to be administered. This latter point may not be important in many cases, but in another it may. For instance, saline medicines largely diluted may act upon the kidneys, while, if less diluted, they would more probably act upon the bowels.

As a rule, medicines which are in any degree pungent or which might be irritating, should be largely diluted, or water be given directly afterward. On the other hand, medicines which have a decided taste should be diluted as little as is consistent with the foregoing rule, in order that the disagreeable taste may not be unduly prolonged. It is not good policy to sweeten such medicines, but rather to give the *douceur*, whether a sweet or a tasty fruit, immediately afterward. Sometimes a decided taste, as of orange juice, in the mouth just before the medicine, is an excellent disguise, especially if it be repeated just afterward. We will speak of this more fully presently.

If a liquid is to be given in doses of a certain number of drops, especially if given frequently, much time and annoyance may be saved by mixing a number of

doses at once. For instance, suppose the physician has ordered that a drop of tincture of aconite be given every hour or half hour until certain effects are produced. The dropping a single drop thus often is sometimes difficult, especially with the agitating circumstances which attend a baby's illness. It is then better to drop into a tumbler or some other convenient vessel a certain number of drops of the medicine, it does not much matter just how many, if they be counted. Then add the same number of teaspoonfuls of water, and mix thoroughly by stirring. Evidently each teaspoonful will contain one drop of the aconite, and it is only necessary to stir the mixture well before each dose and to take up the teaspoonful, to ensure the proper quantity. If the dose were larger, it is easily gotten at by giving the requisite number of teaspoonfuls; or, if smaller, by adding a proportionately larger number of spoonfuls of water at the start. In any case drop the medicine before adding the water.

In spite of the advances of pharmaceutical chemistry it is sometimes necessary to give solutions containing acids either as such, or as helping the solution, like some preparations of iron. These solutions "set the teeth on edge," and fears are naturally entertained, and sometimes with reason, lest the teeth be injured. In such cases it is well, unless the physician has a reason to the contrary, to resort to the following device to prevent harm. Before giving the dose, dissolve a little baking soda, say, a good pinch, in a third of a tumbler of water, warm water we prefer. As soon as the acid dose is taken, let the patient rinse the mouth with the soda, which neutralizes the acid and removes the "on edge" feeling. If the child is too young to do this, wash the mouth with a rag dipped in the soda. Older children can also prevent harm to teeth by the use of a tube or straw in taking the acid.

Oily liquids require some special attention. In domestic practice, and on the whole wisely, castor oil plays an important rôle. The fact that this remedy keeps its place in spite of its well-known inconveniences is evidence of its usefulness. But its giving need not be made so difficult as it often is. If the oil is fresh and of good quality, its taste is not nearly so bad as that of many things more readily taken. If through carelessness the oil becomes rancid, it is a nauseous dose. Oils exposed to the air, especially in warm places, easily undergo changes, and the following precautions should be observed as regards castor oil, cod liver oil, emulsions of either, or of almond oil, often used in cough mixtures. Keep always in as cool a place as practicable. Before giving a dose, see that the neck of the bottle is clean on the outside. Pour out the dose carefully and clean the stopper and neck inside and out before the former is replaced; then cork tightly. The reason of this is that if a film of oil is left exposed to the air, it soon becomes rancid, and in pouring the next dose some of the rancid oil goes with it—enough to give a taste; and when the pouring ceases, the oil that returns to the bottle carries with it some of the rancid oil, enough often to set up a similar process in the bottle. Similar precautions are useful, but not so necessary, for syrups or thick solutions containing gum or sugar.

In administering oils (and we may take the castor oil as a type) it should be remembered that a good deal of the objectionableness is due to the viscidity. Therefore, first heat the spoon by immersion in hot water, or in any other way. If the child is old enough to be allowed, or to have acquired a liking for, sapid things, it is well to squeeze a little orange juice into the hot spoon, then pour in the oil and squeeze a little more juice over the oil. The heat of the spoon makes the oil flow more readily, and the juice above and below renders the oil hardly recognizable. If the baby is so young as to object to the spoon *per se*, there is no use in trying to disguise the oil, but this heating of the oil or spoon is always helpful.

This is a proper place to say that we believe that much of the disgust manifested by children for medicines is simply imitation of their attendants. When, many years ago, we were told by an old physician that children rarely objected to cod liver oil unless they had seen their elders make a face at it, we were surprised, but experience has convinced us of the correctness of the statement. So far as we have observed, more children actually like cod liver oil emulsions, for instance, than object to them.

MEDICINES IN SOLID FORM.

To little children, powders, pills, capsules and tablets are often more difficult to administer than any liquid. This is frequently so because to them swallowing has been an automatic act, and when they endeavor to swallow, even with the best intent, a small object, it is likely to lodge in some part of the mouth over which the child has little control. This, and not the covering of the taste, is the secret of the success of the old-fashioned device of hiding the pill or powder in a good-sized crumb of bread. A large and sufficiently soft bolus is thus formed which the tongue can readily manage. The draft of water acts in the same way. It can be swallowed, and with it goes the dose. This also is one of the advantages of the wafer paper used in administering medicines. Common thin white tissue paper will serve to hide a bitter powder if no better cover is at hand. It may then be taken as a pill, placed well back on the tongue and swallowed immediately with a full draft of water.

There are one or two points about the physiology of swallowing which, if understood, are helpful, namely, first, that swallowing is made easy by the action of the saliva moistening the mass to be swallowed; but if, to avoid taste, speedy swallowing without time being allowed for insalvation be required, or if by reason of fever the mouth be dry, swallowing will be more than usually difficult. Hence another reason for the drink of water. Secondly, that while the passing of the bolus to be swallowed through the mouth proper is done by the muscles of the tongue, which are voluntary muscles even if they act unconsciously, when the bolus reaches as far back as the uvula, it comes within the domain of muscles which act spasmodically and force it down the throat. Every child knows that if it allows a candy to get too far back on the tongue, it "slips down the throat." Hence, if by reason of nervousness or of anything else a pill cannot be swallowed, it is only necessary to place it upon the back of the tongue, and it must go. If there is left a sensation that it has "stuck" anywhere, a draft of water will remove it.

POULTICES.

The making and application of poultices requires a little knack or knowledge. The materials used may be various, but a few kinds only are in very common use, such as freshly ground flaxseed, ground slippery-elm bark, and bread and milk. Whatever is used, the mixture must be, when done, entirely smooth; nothing hard or harsh is admissible. If bread and milk or bread and water be the materials, the boiling water should first be poured into a hot bowl, or the water may be heated in a saucepan. In either case the bread-crumb, no crust, should be broken into it and the whole beaten together with a fork, to keep the mass as light and soft as possible. Flaxseed meal or ground elm bark may be stirred into the hot water and heated till the mass boils or steams and becomes soft. A poultice should not be so stiff as to be harsh, nor so thin as to run.

Any soft, thin fabric of sufficient strength will do for a poultice cloth. Of late years the porous materials known as cheese cloth and butter cloth have in great degree displaced others. They are very suitable to the purpose and so very cheap that they may be thrown away without thought. Bags of these materials of suitable size may be made, into which the poultice mass is filled when ready and the open side stitched up, or a suitable piece of the stuff may be laid upon a hot plate and the mass spread a ½ inch thick or more, the edges turned over and stitched together if they do not remain in place without. The poultice should be always large enough to considerably more than cover the surface to be acted upon; a boil, for instance, having a reddened surface 2½ inches across, will require a poultice 4 inches square at least.

One of the inconveniences of poultices is their drying and sticking to sensitive surfaces or to parts upon which short hairs grow. This may to a great degree be obviated by first putting oil or vaseline upon the surface of the skin or of the poultice; and both the drying and cooling may be hindered by placing over the poultice a piece of oiled silk or gutta-percha tissue, and over it again some cotton batting, the whole to be kept in place by a bandage or the like. The older method of making poultices covered on one surface only with cloth favored this sticking, but the open-textured kinds of poultice cloth mentioned may cover both surfaces of the poultice mass, one lying between the latter and the skin.

In putting on a poultice let it approach the surface to which it is to be applied gradually and put it in place as soon as the heat can be borne. It usually needs renewal in a few hours—two to four on an average.

In the absence of any suitable poultice material a temporary substitute may be found in a thick piece of cotton batting, or, still better, absorbent cotton, dipped in hot water, pressed partly dry, and applied and treated, as to covers, as advised for a poultice.—*The Mother's Nursery Guide.*

GRAFTING WITH PIGEON-SKIN.

Being called upon to attend those injured in neighboring mills, on some of whom it became necessary to do skin-grafting, and the want of a more easy method of performing the operation, says Dr. Aldrich, suggested to me that I had better try the grafting of granulating surfaces with squab-skin.

The Thiersch method of grafting has one drawback, or at least one feature that makes it appear like quite an operation to the patient and his friends, and that is the giving of an anæsthetic in order to take the grafts from the patient or some one else. The taking of human skin probably adds to the brilliancy of the operation when considered by the laity; whereas this method of pigeon-skin grafting suggests little more to the patient than an ordinary dressing does.

In my first attempt at pigeon-skin grafting I selected a pair of young squabs that were of an age when the feathers had not yet shown themselves along the under surface and under the wings. I removed the featherless skin and placed it on a healthy granulating surface, which had previously been cleansed with a four per cent. boracic acid solution. The result of this first operation was fairly satisfactory. Since this first pigeon-skin grafting I have grafted a few times.

The last time I grafted a granulating surface the operation was as successful as any one could wish. I proceeded as follows: Having killed two squabs that were about half grown, I immersed them in warm boracic-acid solution and quickly plucked the feathers; then immersing them in a clean boracic solution, I proceeded to scrub them. My next step was to skin them, removing large pieces at a time, which were immediately placed in warm sterilized water. The granulating surface having been thoroughly cleansed with boracic solution, and then with warm sterilized water, the grafts were placed upon it. Over the grafts gutta-percha tissue was placed, and then warm compresses wrung out in warm boracic solution; over these a layer of dry cotton, and then the bandage.

In my former operations the pus and the liquefied grafts had floated many good grafts and prevented their "taking." I therefore concluded to change the dressings earlier than I ever had before. About forty hours after the operation the dressings were removed, the pus and melted pigeon-skin mopped away with wet compresses; the grafts that were not melted were left in place, and over the surface was applied plain gauze with a layer of resin ointment spread on it, over this borated cotton and then the bandage.

At the end of the next forty-eight hours it was dressed again in the same way, and at the end of the following forty-eight hours it was dressed again. Since this dressing it has been dressed every third or fourth day either with boracic vaseline or resin ointment.

Observations.—Do the grafts grow by a reproduction of their own elements, or do they simply stimulate the granulations, and cause them or the tissues underneath them to take on an epithelial growth?

In one case that I grafted the surface had been stripped by cogs. In the upper part of this lacerated area was a small island of skin that was not removed, but which in time became completely lost sight of, on account of the granulations having swallowed it up, so to speak; yet, later, this same skin came to the surface, and its edges finally coalesced with the skin at the margin of the wound and also with the grafts which had "taken," in close proximity to it. The swallowing

of this island seems to me to be analogous to the swallowing of the epithelial cells, which later only spring to the surface just as this island did.

The success of this method of grafting in my hands appears to me to be equal to the success of the auto-epidermic-Thiersch method. Pigeon-skin grafting does not necessitate an anæsthetic; its failure does not discourage because squabs are as cheap as a can of ether, and you can graft without even the consent of the patient, or, in fact, the patient hardly knowing what you are doing.—*Bos. Med. and Sur. Jour.*

THE TREATMENT OF SUPPURATING BUBOES BY INJECTIONS OF IODOFORM OINTMENT.

The frequency of suppurating glands in the groin, says Dr. William K. Otis, resulting, as they may, from any one of the venereal diseases, from tuberculosis or trauma, renders this affection one with which we are frequently brought in contact and it is one which is especially obdurate to all recognized forms of treatment.

The so-called abortive treatment, either by pressure, the application of the actual cautery, the inunction of green soap, or any of the various methods which have been so frequently advocated, while ideal in conception, is so unreliable and, except in cases of very mild infection, so inefficient that when apparently it does succeed we are usually in doubt whether the gland would have gone on to suppuration without any treatment whatsoever.

The good, old-fashioned method of freely laying open the abscess and allowing it to drain and granulate for weeks, renders the patient exceedingly uncomfortable during that period, permits of the infection of other glands of the same chain and leaves a well-marked and telltale scar.

Excision of all implicated glands, the ideal method from a surgical standpoint, means a difficult and to some extent, a hazardous operation in a dangerous anatomical neighborhood, the retention of the patient for some weeks in bed and a scar, compared with which that resulting from the old method is but trifling.

On these accounts I was led, as far back as 1886, to try a method advocated at that time by Dr. Scott Helm, who withdrew the pus from the abscess cavity in suppurating buboes by means of an aspirator, washed it out with a solution of carbolic acid and refilled it with a mixture of iodol and vaseline, and who reported in August of that year, a series of twenty-three cases, only one of which remained uncured by this method.

At that time, however, while very well satisfied with two cases so treated, I was unable to pursue this method, and it was not until 1880, when Potain reported a series of forty-one cases treated by the injection of a mixture of iodoform and vaseline, one-half of which recovered in less than five days and the longest in twenty-three days, that I was again induced to try this plan of treatment.

The skin, for some eight or ten inches about the affected area was rendered thoroughly aseptic by scrubbing with green soap, washed with sulphuric ether and then douched with a solution of mercuric chloride 1-1,000. A narrow bistoury was then inserted into the abscess cavity and the contents gently but thoroughly squeezed out. The cavity was irrigated with a solution of mercuric chloride 1-1,000, and immediately filled to moderate distension with warm iodoform ointment (10 per cent.), care being taken not to use a sufficient degree of heat to liberate free iodine. The syringe used for introducing the ointment was the ordinary cone-pointed, glass, clap syringe. The plunger being removed, the barrel gently warmed in the flame of an alcohol lamp, was filled with ointment by means of a spatula and the plunger replaced. On finishing the injection, at the instant of withdrawing the syringe from the wound, a compress wet with cold bichloride solution was applied, which instantly solidified the ointment at the orifice, preventing the escape of the contents of the abscess cavity. A large compress of dry bichloride gauze was then applied, covered by a protective dressing of cotton and retained by means of a firm spica. The patient was requested to return at the end

of four days. If all was well at this time the dressing was simply re-applied, but if there were any evidences of inflammatory action, the wound was thoroughly irrigated and cleansed and the injection repeated.

Of sixteen cases so treated, nine were cured in six days, three in twelve days, one in fourteen days, one in twenty-three days, and two deserted during treatment.

The advantages claimed for this procedure are:

1st. That it is simple and safe.

2nd. In suitable cases cure, as a rule, seems to be more rapid than by any other method.

3rd. That the patient is not prevented from going about during treatment.

4th. The first gland being rendered thoroughly aseptic, renders it less likely that other glands in the chain will become infected (?)

5th. *It leaves no tell-tale scar.*

6th. It in no way interferes with the performance of any subsequent surgical procedure, if such should be deemed advisable.—*Jour. Cutan. and Gen.-Urin. Dis.*

MICROBE KILLER DEFEATED.

Dr. Robert G. Eccles, of Brooklyn, N. Y., has gained his suit against Wm. Radam, the Microbe Killer, for libel. The jury has decided that Wm. Radam shall pay to the doctor the sum of $6,000, and in addition shall pay the costs in the suit, all for the privilege of calling the doctor a charlatan and a quack. The verdict is one to be commended by everyone who is interested in the moral and professional standing of not only the physician, but also the pharmacist, as against the quack nostrum manufacturers and venders.

The people, represented by a court and jury, have decided that the nostrum makers cannot with impunity defame the good name and professional standing of men who do not cater to their questionable methods of providing remedies (cure-alls) for the ills of mankind. Radam, it seems, has gone a peg farther, and includes the diseases of the brute creation in the category of what his remedy will cure.

It will be remembered that Dr. Eccles in 1889 analyzed and published a formula for Radam's Microbe Killer, together with a lengthy article in the *Drug. Circ.* In this article the doctor very properly pointed out and held up to ridicule the enormous and inconsistent claims for this worthless cure-all. The analysis and comments upon the same must have touched closely upon facts, or else the Microbe company would not have retaliated in the unbecoming manner in which they did. They ignored the right of a chemist to analyze any substance which he pleases, and apparently held to the fallacious theory that secret nostrums are entitled to a special exemption from investigations of the analytical chemist, and that an analyst has no right to publish the result of his labors.

A few extracts from Dr. Eccles' original article on this question might very properly be quoted at this time, and which would serve well to give the gist for the emanation of the attack on the character of the doctor and his subsequent suit for damages:

"A Texas gentleman by the name of Radam, tiring of the dull drudgery of raising young trees, cabbages, tomatoes and flowers for a living, is now posing, throughout the United States, as a great philanthropist because of a wonderful discovery he claims to have made that is about to revolutionize medical science. If the reader will mix the following together he will have a product identical with Radam's wonderful 'Microbe Killer' (No. 1, there being four strengths) at a cost of less than five cents per gallon:

℞

Oil of Vitriol (impure)	4 drachms
Muriatic Acid "	1 drachm
Red Wine, about	1 ounce
Well or spring water	1 gallon.

"Mr. Radam and his agents only charge three dollars per gallon therefor, but then they throw in the jug as a part of the bargain. This nurseryman, who glories in knowing little or nothing of either medicine or medical science, evidently knows how to count cent per cent. on the first cost of his stock.

"In sheer derision of the unwarranted

broad claims of 'patent medicines' it has been customary to call them 'cure-alls.' To what manner of hyperbole shall we now resort when the proprietor of this new compound guarantees it to be a *never-failing cure for everything*? (Italics ours.) It is positively asserted that 'there is no disease in the *world* that will not yield to the microbe killer." Mr. Radam starts out with the intention of out-quacking the worst of quacks of this or any other age. If boldness of claim and dense, dark, crass ignorance of the subject, he pretends to know best, count for anything, then surely, he takes the lead of all who have preceded him on the same route.

"The company bearing his name, and presumably by his consent, send out descriptive pamphlets that are marvels of inaccuracy, and manifestations of phenomenal ignorance in bacteriology. Sulphuric acid the principal constituent of the 'microbe killer' outside of water, is a slow but cumulative poison. The kidneys are unable to excrete it, and after absorption from the stomach into the blood it has to return back into the alimentary track lower down and pass off with the fæces. Stillè in his 'Therapeutics and Materia Medica' says of it:

"'By habitual use this acid becomes very injurious to the teeth, even when greatly diluted, it whitens them, indeed, but also corrodes them. It also, sooner or later, enfeebles the digestion, produces colicky pains and diarrhœa, and impairs nutrition. Marasmus and even death may be the ultimate result of its use.'

"This is the stuff ignorant people are being beguiled into paying 6,000 per cent. profit to secure a diluted supply of. Where are our boards of health, and what are they doing that these men are allowed to urge everybody who suffers, however little, from any malady to take it indefinitely? Their claims are false, as all who are posted upon the subject know. It is downright humbuggery to speak of all diseases being caused by microbes. What can be the object of this Microbe Killer company in telling the public that physicians give their remedies solely to kill microbes? Surely they must know that this is as far from the truth as mortal man could possibly get. When this company tells us that fungi are animals they cap the climax in the ridiculousness of their position."

At this point the doctor discusses from the modern scientific standpoint the action of acids and alkalies and other antiseptics upon microbes, and shows conclusively the accepted scientific theory of the varied effects upon different germs, and furthermore shows that all diseases do not originate from one and a certain microbe, hence are not susceptible to, and cannot be controlled or cured by one universal remedy. He further states "that Radam's claim is simply laughable to all who know the nature of microbes. If the man (Radam) had ever known anything about the subject, so lamentable an abberration of mind would be clear proof of insanity."

While the article treats somewhat exhaustively upon the subject, it should not be regarded as tedious, for the points brought forth against the extravagant claims of quacks not only hold good in the case of the Microbe Killer, but also in regard to all other quack nostrums for which such broad, incongruous claims are made.

There can be no doubt that no more objectionable or pernicious class of goods are to be met with on the market than a large majority, if in fact, not all of the worthless nostrums which buoy up by false representations the failing strength, for a time, of the really afflicted, thus leaving the patient, when the false hopes have collapsed, in a condition from which recovery by proper medical treatment is far more difficult, and in many cases next to impossible. Not only this, but many times the fears and anticipations of disease in the minds of the hale, though weak-minded, are excited by the platitudes of the quacks, and in so far as this influence extends just so far are they robbing the poor and innocent of hard-earned money. —*New Idea.*

One Ray of Comfort.

"Hello, Rivers! You seem to have a bad cold."

"Worst I ever had, Banks."

"I'm sorry for you, old fellow. Wish I knew of something that would cure you, but I don't."

(With tears in his eyes.) "Give me your hand, Banks! You're the only man I've seen for three days that hadn't a sure cure.—*Chi. Trib.*

CURRENT LITERATURE REVIEWED.

THE AMERICAN JOUNAL OF OBSTETRICS for May contains an article by Dr. Charles P. Noble on

Certain Problems in Abdominal Surgery, based on One Hundred Celiotomies.

The author declares the essentials of success in abdominal surgery are:

I. Early operation.

II. Careful preparation of the patient, with especial reference to stimulating the emunctories and to securing asepsis of the abdominal wall.

III. An aseptic operating room.

IV. Aseptic hands and instruments for the surgeon.

V. As great rapidity in operating as is compatible with careful, thorough work.

VI. Irrigation and drainage in septic cases.

VII. Careful after-treatment, embracing especially the withholding of fluids for about forty-eight hours, early purgation and at least three weeks confinement in bed.

The advantages to the patient of early operation are carefully considered in the paper and the dangers of delay pointed out. The question of drainage is also thoroughly gone into and the results of various operators without drainage noted. The author believes drainage to be of great service in septic operations and in those cases in which it is necessary to separate many vascular adhesions. As to the charge that glass drainage produces fecal fistula, the author thinks that the Scotch verdict of "not proven" must be returned. The paper includes tables showing the disease for which the operation was performed and the results of operation. The report also includes several cases of post-operative ventral hernia. The author regards as causes of post-operative ventral hernia:

I. Extreme malnutrition of the patient when operated upon.

II. Failure to approximate the divided transverse aponeurosis.

III. Suppuration of the abdominal wound.

IV. Drainage.

V. Early rising from bed.

VI. Too early return to work.

VII. Failure to wear a bandage (?).

Dr. Mary A. Dixon Jones concludes her scholarly paper on

Colpo-hysterectomy for Malignant Disease.

The later statistics of the operation are given, the literature of the subject having been consulted down to the present year. The author unhesitatingly decides in favor of complete removal of the uterus as against the amputation of the cancerous cervix, quoting from various operators to fortify her position. The limits of vaginal hysterectomy are also discussed and the technique of the operation minutely described. The author decides that the vagino-peritoneal opening should not be closed as the drainage in these cases is often great and the open method allows of its proper discharge. She has found that the best results are obtained by removing the dressings a few hours after operation and, after the first day, once in twenty four hours till the wound is healed. She has also found that the ealier and freer the evacuations of the bowels the better for the patient and, as after laparotomy, she has usually tried to have a free evacuation of the bowels on the second day. In regard to the question of the use of forceps or ligatures in securing the broad ligament the author states that she uses either as the circumstances of the case make most convenient.

Dr. George J. Englemann reports.

An Unique case of Extra-uterine Fetation.

The patient had been treated for pelvic trouble for which operation had been proposed and declined by the patient. The patient gradually recovered her health and some years later was seized with an attack of abdominal cramps, as she stated, for the purpose of deceiving her attendant, being unmarried and probably fearing pregnancy. She gradually became septic and died; the post mortem revealing a tubal pregnancy, an illustration of which is given in the paper. Dr. Englemann states that he saw the patient but casually during her last illness and urged the necessity of operation, in which opinion the attendant did not concur. Dr. Englemann also states that the symptoms pointed rather to appendicitis than an extra-uterine gestation.

Dr. Charles A. L. Reed reports a case of "The Second Occurrence of Ectopic Gestation in the Same Patient." The second operation was performed for intestinal obstruction, the ectopic gestation being accidently discovered during the operation. The patient recovered.

Dr. M. F. Cuthbert reports cases of "Acquired Venereal Disease in Children."

Dr. S. Marx discusses

Duehrssen's Method of Deep Cervical Incisions in Cases Requiring Rapid Delivery.

The author gives the indication for the procedure as follows: "In the great majority of cases the operation is permissible shortly before or during labor, when the supra-vaginal portion has disappeared. Upon this point Duehrssen lays particular stress. Where the supra-vaginal portion is present he advises that blunt dilatation with the finger or instrument should precede his incisions, they being made only when the supra-vaginal portion has nearly or entirely disappeared. In multiparae where the supra-vaginal portion is abnormally rigid or consists of cicatricial tissue, as from an old cervical laceration, incision of the supra-vaginal portion may be called for. The operation, according to Duehrssen, is also indicated in the rigid os of old primiparae where the ordinary remedies fail; in cases of premature artificial rupture of the membranes; placenta previa; eclampsia, especially in primiparae; prolapsus funi in old primiparae; in cases of flat, rachitic and generally contracted pelves to afford the

accoucheur the oportunity to apply the forceps at the time when the position of the head is most favorable." To the author's mind the operation is called for, in an overwhelming majority of cases, by eclampsia. For these cases he does not know of one operation where speed and rapidity of action can be so relied upon as in the procedure recommended in the article. In both the cases reported by the author in his paper, the interval was less then fifteen minutes from the time the cervix was incised until the delivery of the placenta. "Another condition, not mentioned by Duehrssen, where the operation must be of signal assistance, is in accidental hemorrhage before or during labor. "In these cases little, if anything, can be done before the uterus is emptied." As to the method of operation — "Duehrssen advises the use of a pair of scissors of large size. It is necessary to thoroughly disinfect the vaginal tract and vulva. The lower uterine segment is seized through the speculum by a pair of stout bullet forceps, and the tissues cut, dividing the cervix from the vaginal junction down. This is done on four sides." In his own cases the author used a long sharp bistoury, believing that the incisions can be more carefully done and that the cut is cleaner than by the scissors. No speculum was used. "The uterus is steadied by a pair of bullet forceps. The index finger is carried into the cervical canal to a point corresponding to the cervico-vaginal junction. The knife, guarded by and between the index and middle fingers of the other hand, is passed along the vagina to the junction of the cervix and vagina. When the fingers of both hands meet, the point of the knife is pressed against the finger inside of the cervix and both are withdrawn at the same time, the point of the knife continually in contact with the finger to prevent its injuring the vagina. This manoeuvre is repeated until the incisions are made on four sides. In those cases in which the supra-vaginal portion is present the advice given is somewhat modified. Blunt manual or instrumental dilatation until this portion has nearly or entirely disappeared — i. e., merged into the uterus — should be followed by the deep incisions." In the two cases which the author reports in his paper, he did not meet with any serious hemorrhage and the only remaining trace of the operation after recovery was a slight stellate laceration of the cervix.

Dr. Reuben Peterson reports "A case of Rupture of an Ovarian Cyst." The site of rupture was clearly shown in the cyst wall at the time of operation, nearly a year subsequently.

Dr. Irving W. Smith contributes a short paper on the

Surgical Treatment of Cranial Infraction in a New-born Infant.

The mother was a dwarf and the labor required the use of forceps. The presentation was right occipito-anterior. The application was high, and the impingements of the tips of the blades of the Hodge instrument were on the left frontal eminence and over the right ear. During extraction a sense of something giving way was felt for a moment and on emergence of the head there was found a depression of the cranium on the right side of the frontal bone. The child was large and vigorous, but it hardly slept or nursed and was restless and crying constantly. On the fourth day it was decided to treat the case on general principles. The infant was anaesthetized, the scalp opened and the bone divided by Hey's saw transversely to the depression axis. The bone was lifted by the elevator applied successively on either side of the saw track. A slender, long spicule was removed. There was some free venous hemorrhage but no shock, and the child slept and nursed normally from the hour of the operation. Primary union followed and a month later the infant seemed perfectly well." The reporter believes the injury was caused by unskillful application of force, bringing the injured part across the promontory of a strongly curved sacrum.

Dr. J. N. Martin, reports a case of "Fatty Uterus — Removal — Recovery." After the operation, an examination of the uterus revealed the cavity surrounded on all sides by fat from two to three inches in thickness; this was surrounded by the serous membrane with a few fibres of muscular tissue, in all about one-sixty-fourth of an inch in thickness. The operation was performed for persistent menorrhagia.

THE VIRGINIA MEDICAL MONTHLY

For May contains an open letter from Dr. G. Frank Lydston to Dr. Hunter McGuire on the subject of

Sexual Crimes among the Southern Negroes Scientifically Considered.

In his letter Dr. Lydston reviews the whole negro question in a thorough and impartial manner, maintaining the middle between wholesale condemnation and sickly sentimentality. The demoralizing effect of sudden freedom, with the accompanying necessity for independent thought and action, in a race accustomed to being thought for and taken care of and but little removed from absolute savagery, receives proper attention as one of the factors. He also alludes to the want of morals which, sometimes existed between master and slave under the old regime, as perhaps accounting somewhat for the condition.

Dr. R. A. Lancaster discusses the subject of

Simple Continued Fever.

The name is objectionable in that it gives no idea of its etiology or pathology; but until its cause is better understood, and its pathology further investigated we must be content with a name which does not mislead if it gives no information. He believes that the *materies morbi* of this fever is an unclassified germ, entirely different from the germs of typhoid or of malarial fever. The only evidence he has to offer in support of this theory is taken from a clinical standpoint, but he believes the day is not far distant when the microscopist and the bacteriologist will sustain this view. It has been

his observation that this fever is more prevalent in spring and early summer, before the advent of our rainy season, and that it occurs more frequently where the surroundings are unsanitary than where thorough sanitation prevails. The evidence would go to prove that, like typhoid fever, the cause of simple continued fever is of animal origin; but, while its habitat may be the same as the typhoid bacillus, its manifestations are as unlike and distinctive as are those of variola and varicella, as measles and scarlet fever. It has *per se* but one constant and essential symptom and that is pyrexia. All the other manifestations are the result of pyrexia, and are as varying as are the effects of pyrexia on different individuals. There seems to be good grounds for the popular belief that this fever, as well as other forms of continued fever, is likely to leave on some multiple of the seventh day. Oftentimes there will be an abrupt termination on the fourteenth or twenty-first day with no subsequent rise. At other times the first complete remission will occur on these days—the temperature being normal or subnormal for one, two or more hours, with a rapidly shortening period of pyrexia each day. For treatment he uses calomel in two grain doses combined with soda, every two hours. As a means of diagnosis and to eliminate any malarial element he gives quinine in fifteen to twenty grain doses *per diem* for the first three days. The antipyretics he has also found of service. Cool sponging or a cold douche to the head are of advantage.

Dr. George M. Kober contributes a paper on "The Etiology, Distribution and Prevention of Land and Ship Cholera," reviewing the characteristics of the bacillus, the causation and symptoms of the disease and the precautionary measures that should be taken to prevent its importation or to suppress an outbreak.

Dr. Johnson Eliot reports a case of Mastoid Abscess and discusses the subject of

Mastoid Disease.

In all severe cases of inflammation of the middle ear there is more or less involvement of the mastoid. We may have inflammation of its periosteum or caries with formation of abscess in some part of the cavity, the first often arising from acute catarrh. Caries and necrosis when found in the mastoid, are due to imperfect removal of pus. Sclerosis and hyperostosis sometimes result from mastoiditis. Pain, tenderness, redness and swelling in the mastoid region, direct us in making a diagnosis. Neglected cases may discharge externally and relief be obtained. Pus may be carried through the mastoid vein and enter the lateral sinus, causing pyæmia. Paralysis of the seventh nerve may occur on account of its passing through the Fallopian canal. Erysipelas and abscess of the neck, and also brain symptoms, may develop. Cases of congestion and periostitis of mild type usually yield to a few leeches followed by poultices. If these are not effectual, a Wilde incision should be made. Slight hemorrhage occurs from the posterior auricular artery. The depletion will be beneficial even though pus be not present. It is best not to delay the operation after the diagnosis has been made in the hope that necrosis will cast off the bone. Anodynes and leeches do not relieve the pain, which is relieved by firm pressure. Often, where there is a purulent discharge into the external meatus, we find granulations. In the more severe cases, after making an incision to the bone, immediately back of the auricle, an opening to the bone should be made; or, if an opening exist already it should be enlarged. An ordinary dressing should be used and the wound allowed to granulate from the bottom. Sulphide of calcium seems to exert an influence over suppurative diseases of the ear as well as elsewhere.

Dr. DeWitt Webb contributes a paper on "The Influence of Immaturity and Degeneration in Some Forms of Thinking—Especially Sexual Thinking."

Dr. Stuart McGuire discusses "Drainage after Abdominal Section," reporting a case where the tumor removed weighed seventy-seven pounds. The patient made an uninterrupted recovery. His conclusions are: In simple cases, use drainage by purgation. When complications indicate direct drainage, use the glass tube. When combined hemotasis and drainage are required, or adhesions desired, use the gauze. In some cases a combination of the different methods is advisable.

Dr. Edwin L. Morgan contributes an interesting paper on "Syphilis—Its Age and Relation to the Antiquity of Man." The literature on the subject is carefully and thoroughly considered in regard to the existence of prehistoric syphilis both in America and in Europe. The author is not a believer in the American origin of the disease and believes that it is as old as our race. "As to its origin or whence it came, the *silent* page of history can only tell."

Dr. Benjamin H. Brodnax describes an "abdominal corset" used by him in cases of "Chronic Fermentative Diarrhœa in Children, due to torpidity and relaxation of the bowels." He combines the use of the appliance, (which is made of a strip of cotton flannel long enough to reach from the pubes to the breast bone and wide enough to reach nearly around the abdomen, and fastened at the back by means of tapes) with the small doses of salol. His idea is that the intestines are distended by fermentative gases and cannot force out their contents or absorb the nutrient juices necessary to life. By compressing the abdomen, the intestines regain their normal contractility, and by emptying themselves, cure is set up; "and the peevish, fretful infant, relieved of the constant neuralgia of the bowels, becomes happy and healthy."

Dr. B. F. Travis discusses the subject of "Acute Purulent Inflammation of the Middle Ear." Other papers are: "Imperfect Articulation, Stammering etc.,—Their Cause and Cure" by Dr. Frederick Sohon; "Multiple Retro-pharyngeal Abscess" by Dr. John Dunn; and the report of a "Case of Supra-pubic Cystotomy" by Dr. Charles Minor Blackford, Jr.

PERISCOPE.

MEDICINE.

Faults in Voice Production which Lead to Voice Disease.

Lennox Brown (*Jour. Lar., Rhin, and Otol*). Defects in methods of speaking and singing are much more potent factors in production of voice failure than diseases of throat and nose. There are three elements concerned in the formation of the voice, which may be seat of the defect.

First. The *motor*, that is the lungs representing respiration.

The lungs should be inflated by means of the diaphragm and intercostal muscles, avoiding collar-bone breathing.

The breath should be economized in allowing it to escape from the lungs, and breath should not be taken too frequently.

The "attack" upon a tone should be calculated with just enough force to permit the proper adjustment of the vocal bands for that particular tone, faulty attack causes a lack of co-ordination.

Second. The *vibrating* element, situated in the larynx.

The most common defect here is carrying the registers too high before changing to the one above, and tremolo and vibrato.

Also raising the pitch of the voice instead of raising the voice itself.

Third. The resounding element, dependent upon properly shaping the resonating cavity, that is the chest walls, windpipe and all the pharyngeal and nasal cavities.

Also want of contracting power of soft palate. Voice gymnastics can accomplish much in overcoming these defects.

For Chronic Bronchitis and Emphysema.

℞

Ammonii carbonatis.....	gr. iv.
Tincturae scillae.....	mxx.
Spiritus aetheris.....	mx.
Tincturae nucis vomicae.....	mx.
Infusum serpentariae ad.....	ʒj.

Misce et fiat misturr.

Two tablespoonfuls every six hours.

—*Ex.*

GYNECOLOGY.

Varicocele in Women.

The foreign correspondent of the St. Joseph *Medical Herald* says: To change the subject, what do you think of the lately enunciated opinion that varicocele is quite as frequent in women as it is in men, but that we do dot know its symptoms? A late work on the subject by M. Roussau, who had seen the cases in Dr. Pozzi's wards, explains this malady which is called "pelvic varicocele." It has been noticed in making laparotomy and hysterectomy, and in autopsies made on women, that varicose dilatations of the pelvis are very common, just as hemorrhoids and varicose veins of the leg are in women. Pelvic varicocele comes from any cause that brings about any interference with the venous circulation of the pelvis, such as tumors, cysts of the ovary, as well as the large class of fibroids, etc. There is also a general state that predisposes to this malady; a sort of atony of the smooth fibers of the muscular structure of the veins, which is very often under the influence of certain diseases. The symptoms of varicocele in women are analogous to those in man; pain in the left side of the pelvis, running downwards into the groin and back upwards to the lumbar region, with feeling of weight in the part, most felt at the monthly period. It goes away when the patient is lying down, and comes back when she walks. In making an exploration, varicose veins may be seen on the labia majora and the finger will find a tumor that is soft and painful to pressure. This will be more prominent when the patient is standing. By the rectal touch it can be felt very well, and may be taken for salpingitis. The symptoms are not very evident in many cases but the malady should be sought for however, in all varicose cases. The treatment must address itself to the cause, but in case of pain, rectal injections of laudanum solution are ordered, while the patient is kept in bed. To diminish the congestion and help the circulation along, hot water rectal injections are used, with a rectal sound that will carry the water some eight or ten inches up; a small porcelain ring is held in the anus to allow the water to flow away, and as much as five or six quarts are used. A vaginal tampon is also advised, to make compression on the vessels. Hydrastis canadensis and hamamelis are given internally.

NEWS AND MISCELLANY.

Haydn's Sacred Oratorio, "The Creation," will be sung for the benefit of the Methodist Episcopal Hospital, by a chorus of 300 voices, under the direction of Caspar Fischer, Jr., at the Academy of Music, Thursday Evening, May 25, 1893. Germania orchestra. Soloists: Madame Seulke, Soprano; Leonard E. Auty, Tenor; Emil Fischer, of New York, Basso. A. Rittenhouse, D. D., Supt. of Hospital.

ARMY AND NAVY.

U. S. ARMY FROM MAY 7, 1893, TO MAY 13, 1893.

Captain Louis Brecceemin, Assistant Surgeon, U. S. Army, is relieved from duty at Presidio of San Francisco, Cal. and ordered to Columbus Barracks, Ohio, for duty.

1st Lieut. Charles Willcox, Assistant Surgeon, relieved from temporary duty at Angel Island, Cal. and ordered to Presidio of San Francisco, Cal. for duty.

Leave of absence for 20 days, to commence about May 24, 1893, is hereby granted, Major Curtis E. Munn, Surgeon, U. S. Army.

Leave of absence for one month to take effect June 1, 1893, is granted Captain Walter D. McCaw, Assistant Surgeon, U. S. Army.

By direction of the Secretary of War, leave of absence for six months on account of sickness, is granted Captain Robert B. Bevham, Assistant Surgeon, U. S. Army.

Captain Richard W. Johnson, Assistant Surgeon, relieved from duty at Fort Bowie, Arizona, and ordered to duty at Washington Barracks, D. C.

Captain William J. Walkemac, Assistant Surgeon, relieved from duty at Fort Bidwell, California, and ordered, to Fort Thomas, Kentucky, for duty.

A board of officers to consist of

Colonel Charles T. Alexander, Assistant Surgeon General

Lieut. Col. George M. Sternberg, Deputy Surgeon General

Major John Van R. Hoff, Surgeon, is appointed to meet, at the call of the president there of, at New York City, for the examination of such officers as may be ordered before it, with a view to determining their fitness for promotion.

Captain Curtis E. Price, Assistant Surgeon, ordered to report in person to the president of the examining board at New York City, for examination for promotion

Captain Blair D. Taylor, Assistant Surgeon, will report in person to Lieut. Col. Dallas Bache, Deputy Surg. General president of the examining board, convened at Omaha, Neb. at such time as he may be required by the board for examination as to his fitness for promotion.

U. S. MARINE HOSPITAL SERVICE FOR THE FOUR WEEKS ENDING MAY 6TH, 1893.

Bailhache, P. H., Surgeon, to report to Superintendent of Immigration for temporary duty, April 24th, 1893.

Purviance, George, Surgeon, detailed as Chairman Board of Examiners, May 6th, 1893.

Gassoway, J. M. Surgeon, granted leave of absence for two days, April 19th, 1893, detailed as member of Board of Examiners, May 6th, 1893.

Stoner, G. W., Surgeon, detailed to represent Service at International Congress of Charities, etc., Chicago, Illinois, May 3rd, 1893.

Irwin, Fairfax, Surgeon, to proceed to Naples, Italy, for temporary duty, April 17th, 1893.

Carter, H. R., Surgeon, detailed as Recorder Board of Examiners, May 6th, 1893.

Wheeler, W. A., to proceed to Europe as Inspector, April 17th, 1893.

Banks, C. E., passed Assistant Surgeon, to proceed to Grasse Isle Quarantine Station, Canada, for duty.

Carrington, P. M., passed Assistant Surgeon, to proceed to Hamburg, Germany, for duty, April 17th, 1893; to proceed to Marseilles, France, for temporary duty, April 28th, 1893.

Geddings, H: D., passed Assistant Surgeon, to inspect Fisherman's Island, Virginia, May 6th, 1893.

Stimpson, W. G., Assistant Surgeon, to proceed to Quebec, Canada, for duty, April 29th, 1893.

Stewart, W. J. S., Assistant Surgeon, to report at Washington, D. C., April 22nd, 1893.

Branham, J. W., Assistant Surgeon, to proceed to New York, N. Y., for duty, April 21st, 1893.

Sprague, E. K., Assistant Surgeon, to proceed to Charleston, S. C., for duty, April 21st, 1893.

Prochazka, Emil, Assistant Surgeon, to proceed to Ellis Island, N. Y., for duty, April 18th, 1893.

APPOINTMENTS.

John W. Branheim, Virginia, commissioned as Assistant Surgeon, April 19th, 1893.

Ezra K. Sprague, of New York, commissioned as Assistant Surgeon, April 19th, 1893.

Emil Prochazka, of Wisconsin, commissioned as Assistant Surgeon, April 19th, 1893.

PROMOTIONS.

Assistant Surgeon J. C. Perry, commissioned as Passed Assistant Surgeon, April 19th, 1893.

Assistant Surgeon A. C. Smith, commissioned as Passed Assistant Surgeon, April 19th, 1893.

The World's Fair.

FINAL ARRANGEMENTS FOR THE SALE OF TICKETS VIA THE B. & O. R. R.

For the benefit of those desiring to attend the World's Fair the Baltimore & Ohio Railroad will sell Excursion tickets to Chicago and return, at all stations on its line, at low rates. Tickets will be on sale until November 1st, and will be valid for return journey until November 15th, 1893. They provide for a reduction of 20 per cent. below regular rates. These ticket will be valid only for continuous journey. Tickets at higher rates will be sold that will permit holders to stop over at Baltimore, Washington, or any other point, going and returning.

Besides the opportunity of visiting Washington, a privilege afforded by no other route, tourists via the Baltimore & Ohio Railroad will traverse the historic Potomac Valley, the theatre of the war between the States. At Cumberland they will be offered a choice of routes, via Pittsburgh, or across the Allegheny mountains, 3,000 feet above the level of the sea and via Deer Park and Oakland, the famous summer resorts. The scenery along the Baltimore & Ohio route is the most picturesque in America. Pullman accommodations may be reserved in advance of journey. For rates and information apply to nearest B. &. O. Ticket Agent, or Chas. O. Scull, General Passenger Agent, Baltimore, Md.